Report on the demographic situation in Canada

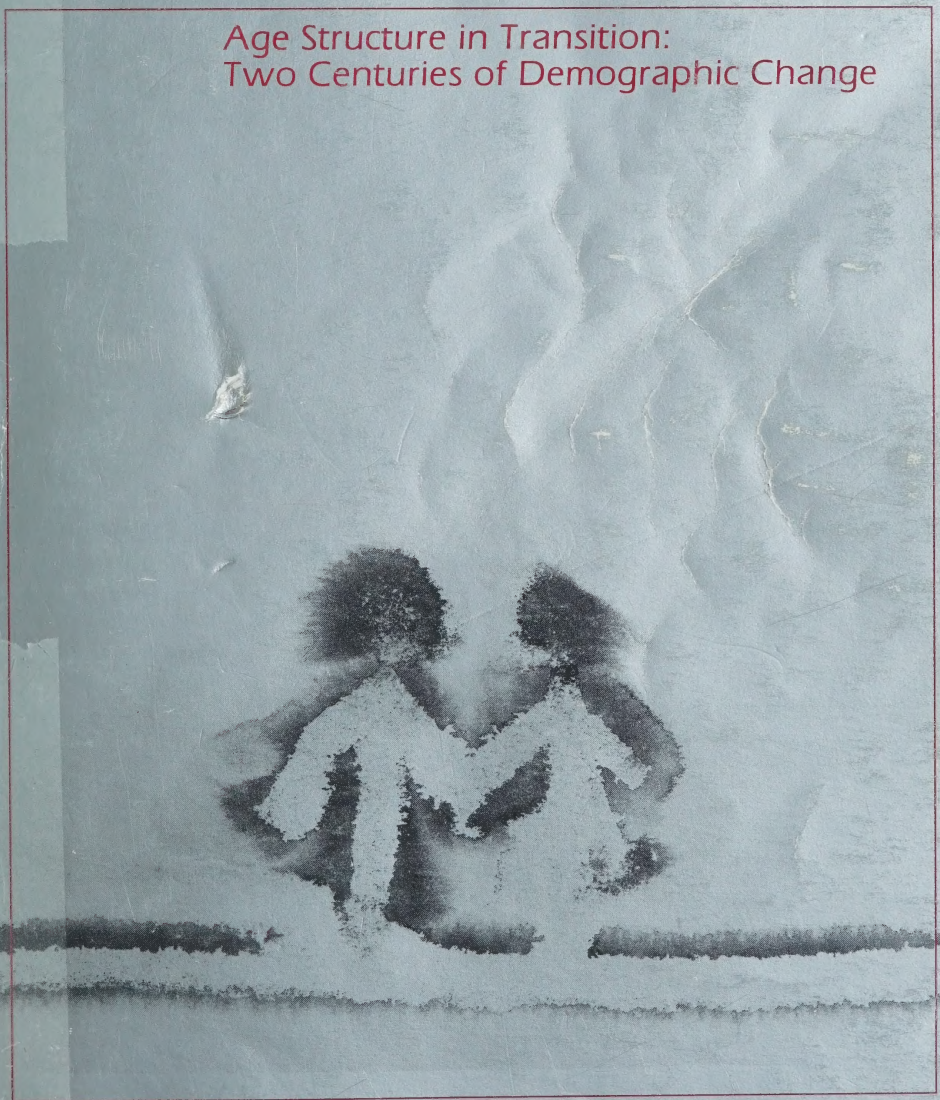
1992

Catalogue 91-209E Annual

Report on the Demographic Situation in Canada 1992

Current Demographic Analysis

Age Structure in Transition: Two Centuries of Demographic Change



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Statistics Canada
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Report on the Demographic Situation in Canada 1992

Current Demographic Analysis

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Published by authority of the Minister
responsible for Statistics Canada

November 1992

Price: Canada: $26.00 annually
United States: US$31.00 annually
Other Countries: US$36.00 annually

Catalogue No. 91-209E

ISSN 0715-9293

Ottawa

The text was originally written in French
Version française de cette publication disponible sur demande

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Note of Appreciation

Canada owes the success of its statistical system to a long-standing cooperation involving Statistics Canada, the citizens of Canada, its businesses and governments. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

Symbols

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Supplementary

The reader should be reminded that the publication of successive versions of the ***Report on the Demographic Situation in Canada*** *does not render previous versions obsolete. Rather, since a different substantive focus is taken with each issue, the volumes actually complement each other. Furthermore, certain of the basic demographic topics are covered in serial format, making the volumes a valuable source of time series data on the Canadian demographic scene.*

Preface

Each year, Statistics Canada highlights the principal demographic changes that have occurred in the Canadian population. The release of the first part of the 1991 Census data permitted a further refinement of previous indicators, and made possible an evaluation of the accuracy of past estimates. Clearly, the most recent data, as summarized in Part I of this report, show that Canada's rate of population growth is still the highest in the industrialized world. This arises from the combination of an increase in natural growth, and a substantial level of immigration. Life expectancy continues to improve, and fertility to increase.

The present is better understood when it is linked to the past. A review of the past two centuries, presented in Part II of this report, allows a clearer interpretation of certain social behaviour in Canada today.

Ivan P. Fellegi
Chief Statistician of Canada

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Highlights

PART I

At 1.5% in 1990, Canada's rate of population growth remained the highest in the industrialized world. The rate in Europe has climbed no higher than 0.4%, in the United States 1.1%, and in Australia 1.4%.

At the provincial level, British Columbia led with the strongest growth, followed by Alberta. Ontario held third place, although it received half of the 220,000 international migrants.

xxx

Canada's population:	Is	8% of North America's, one-third of Mexico's, 11% of that of the United States;
	it is also	half the size of that of France, the United Kingdom or Italy; one-third the size of Germany's, and two-thirds the size of Spain's;
	and it remains	more than three times that of Sweden, and more than six times that of Norway.

xxx

A comparison of the populations for the years 1991 and 1971 reveals a modest rise in the proportion of males aged 15 plus who are single (34.2% compared to 31.6%), a sharp rise in divorcees (5.3% compared to 0.1%), and consequently, a drop in married males (58.2% compared to 64.9%). The story for females is much the same.

In 1971, 68% of persons aged 20 to 24 were single, while in 1991, 91% of them were.

Not only are people marrying less, but fewer and fewer are living as couples. For example, among women aged 25 to 29 in 1981, 79% were living in different sex couples; in 1991, only 66% were.

xxx

Single-parent families are increasing, . . . but more slowly in the last five years than in the preceding five (12% compared to 20%). As the growth in two-parent families has been very weak (3.0%), single-parent families have stolen the limelight (they accounted for 20% of families in 1991 compared to 17% in 1981).

As it is for men, so it is for women: in both groups, heads of single-parent families have increasingly come from the single and divorced, and decreasingly from among the separated and widowed. Of the increase since 1986, singles account for 39%, divorcees for 34%, widows and widowers for 25%, separated persons for 1%, and married persons 2%.

xxx

Solo living is becoming more prominent. Between 1981 and 1991, the proportion of one-person households grew by 111%. This increase was greater in the east than in the west of the country. Quebec has by far the greatest proportion of one-person households (22%). In British Columbia, which placed second, one-person households only accounted for 14% of the total. Ontario had the lowest proportion (7.4%).

Legal marriage continues to take place later and later in people's lives. Younger generations appear content to remain single much longer than their predecessors.

For every 100 marriages registered in 1960, the same year 55 unions ended either in divorce or death; in 1990, for 100 marriages there were 89 dissolutions – 42 by divorce.

xxx

For the fourth consecutive year, Canada's total fertility rate has increased. The 1990 level of 1.83 children per woman represents a return to a level not seen in 14 years.

While the increase of the total fertility rate for Canada as a whole has slowed down in recent years, in Quebec it has increased steadily. As a result, Quebec's rate, which was lower than the national rate by 315 per 1,000 in 1986, was only lower by 137 per 1,000 in 1990, mainly due to births of first and second children, and marginally to third and subsequent children.

Births to unmarried women rose in all provinces. The highest proportion of such births (36%) is found in Quebec, and the lowest (14.5%), in Ontario. Almost one out of two first births in Quebec is to an unmarried woman - one in five in Ontario - one in three in the whole of Canada.

The number of abortions has risen substantially since 1988. The rate for women 12 to 44 years of age has climbed from 11 to 14 per 1,000. The younger the generation, the more frequent the occurrence of voluntary interruptions of pregnancy. In 1990, Ontario had a higher rate than Quebec.

xxx

Data for 1990 confirm that increases in life expectancy have progressed more rapidly for men than for women over the last 10 years. Of the 2.7 year gain in male life expectancy between 1976 and 1986, 1.7 years resulted from further successes in the fight against diseases of the circulatory system. Women's life expectancy increased by 1.95 years, and 1.5 years of this gain was due to a reduction in heart diseases. Deaths due to cancer are on the rise.

Deaths due to AIDS are increasing... but slowly.

xxx

Though immigration was strong in 1990 compared to recent years (228,557 persons), if the rate had been equal to that of 1958, Canada would have received 450,000 immigrants.

China placed first among the countries from which immigrants entered in 1990. Six countries furnished more than 12,000 immigrants each - four are found in Asia, one in the Middle East and one in Eastern Europe.

If the balance of internal migration over the last 20 years is considered, Quebec has lost 414,000 persons, and British Columbia has gained 414,000. Saskatchewan has lost 160,000 while Alberta has gained 188,000.

PART II

- After the 1941 Census, it had been expected that the growth of the Canadian population would be only modest up to the year 1990, when it would reach a maximum of 15 million inhabitants.

- The combined interplay between fertility and mortality under Canada's old demographic regime of the eighteenth century, yielded an age pyramid in which the three first five-year age groups (0-14 years), were more numerous than the five following age groups (15-39 years). The five age groups of mature adults (40-64 years) were three times less numerous than the five age groups of young adults (15-39 years). Persons aged 65 and over were almost nonexistent.

- The average annual growth of the youth population over the course of the last 120 years has been 1.2%, and that of persons aged 65 and over, 2.7%. As a result between 1861 and 1981 the number of older persons increased by a factor of 24.

- Of the men and women born in Canada in 1951, more will live past their 60th birthday, than survived to their first among those born during the eighteenth century.

- Women born around 1950, at age 40, had ahead of them more than half of a life which is twice as long as that of women born in the eighteenth century.

- Thanks to the decline in mortality rates, of women born in 1950, only 50 per 1,000 will die before becoming mothers. For every 1,000 women born during the eighteenth century, 400 died before giving birth to a child.

- If Canadian women born in 1950 had had the fertility of women born in the eighteenth century, their completed fertility would have been 7.8 children per woman (which would produce a doubling of the population in 15 years). In contrast, if the women of the eighteenth century had had the fertility of the women of 1950, the completed fertility would have been one child per woman (a halving of the population in 30 years).

- A curious turn of events: following a call for downsizing due to a drop in the number of persons under 20, the educational sector, whose activities have been traditionally centred on the youth, is now being sustained by a growing senior population.

Part I

DEMOGRAPHIC ACCOUNTS

The National Level

The population of Canada as of January 1, 1992, was estimated at 27,243,000 persons. This was calculated using the component method from the population estimate of January 1, 1991. The population of 1991 was based on the Census of 1986; that is, the January 1, 1992 population estimate is not related to the June 4, 1991 Census. In particular, it did not consider non-residents, who were enumerated for the first time in the last census. As a result, last year's demographic accounts for the provinces, which appear in Table 1 and in the Appendix, are consistent with those of previous years (no residual population appears).

The demographic accounts show that, as in 1990, the 1991 total growth was relatively high, at 1.5%. The total population increase of 402,000 persons is about equal to the population of the City of Ottawa. For the most part, this total growth is due to a still increasing number of births. As predicted, the preliminary number of births for 1990 (399,300) was replaced by a higher final value of 405,000, surpassing even the estimate of 404,000 proposed by Demography Division. Since 1987, the annual number of births has risen progressively from 369,700 to 411,000[1] (an increase of 42,000). Annual deaths, which are expected to rise in an aging society, have risen only by 11,100, reaching 196,000 in 1991.

In terms of entrants into Canada, the 224,600 international immigrants who arrived in 1990 ranked second in number to only 1957 (282,144) since the all-time peak of 480,870 was reached in 1913 – the year before World War I. Net international migration was therefore estimated at 186,300 given that 38,300 persons emigrated from Canada – the lowest number in the last 30 years.

The Year in the Provinces

While the 1991 numbers are provisional, the final numbers should not be substantially different. Bearing this in mind, neither the Maritime Provinces nor Manitoba show significant change. Over the last three years, their low growth has contributed in some measure to depressing the national average. Even though Nova Scotia was the leader among this slow-growth group, its rate of 7.4 per 1,000 was only half the national rate of growth. At the far end of the low-growth spectrum, Prince Edward Island experienced a slight population decline in 1991.

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[1] The 411,000 figure for 1991 might be slightly optimistic, and overestimated by 2,000 to 3,000 births, given the effect of the current recession on reproductive behaviour. It is believed that the number of births should remain around its current value for the next three to four years, and then should start to recede, since the youngest female cohorts of the baby boom will be entering their thirties, whereas the highest fertility rates are currently observed for women in their late twenties.

Table 1. Statement of Population Change, Canada, 1960-1992 (Figures in thousands and rates in percent) (Official Data)

Year	Population as of January 1	Total Growth		Natural Increase		Net Migration[1]	Components				
		Number	Rate	Number	Rate		Births	Deaths	Immigrants[2]	Emigrants[3]	Residual[4]
1960	17,710.0	382.0	2.1	338.9	1.9	43.1	478.6	139.7	104.1	75.6	−14.6
1961	18,092.0	350.0	1.9	334.7	1.8	15.3	475.7	141.0	71.7	72.3	−15.9
1962	18,442.0	345.0	1.8	326.0	1.8	19.0	469.7	143.7	74.6	76.7	−21.1
1963	18,787.0	355.0	1.9	318.4	1.7	36.6	465.8	147.4	93.2	83.6	−27.0
1964	19,142.0	359.0	1.8	307.0	1.6	52.0	452.9	145.9	112.6	92.4	−31.8
1965	19,501.0	356.0	1.8	269.7	1.4	86.3	418.6	148.9	146.8	105.3	−44.8
1966	19,857.0	371.0	1.8	237.8	1.2	133.2	387.7	149.9	194.7	91.5	−30.0
1967	20,228.0	353.0	1.7	220.6	1.1	132.4	370.9	150.3	222.9	108.5	−18.0
1968	20,581.0	307.0	1.5	211.1	1.0	95.9	364.3	153.2	184.0	100.0	−11.9
1969	20,888.0	294.0	1.4	215.1	1.0	78.9	369.6	154.5	161.5	90.1	−7.5
1970	21,182.0	283.0	1.3	216.0	1.0	67.0	372.0	156.0	147.7	81.0	−0.3
1971	21,465.0	244.6	1.1	204.9	1.0	39.7	362.2	157.3	121.9	70.1	12.1
1972	21,709.6	232.8	1.1	184.9	0.9	47.9	347.3	162.4	122.0	63.2	10.9
1973	21,942.4	292.9	1.3	180.4	0.8	112.5	344.4	164.0	184.2	78.5	−6.8
1974	22,235.3	333.4	1.5	180.1	0.8	153.3	346.9	166.8	218.5	78.1	−12.9
1975	22,568.7	315.2	1.4	192.3	0.9	122.9	358.7	166.4	187.9	70.7	−5.7
1976	22,883.9	274.5	1.2	193.2	0.8	81.3	360.4	167.2	149.4	64.4	3.7
1977	23,158.4	259.0	1.1	193.2	0.8	65.8	360.7	167.5	114.9	61.4	−12.3
1978	23,417.4	227.1	1.0	192.0	0.8	35.1	360.2	168.2	86.3	63.5	−12.3
1979	23,644.5	267.4	1.1	197.9	0.8	69.5	366.1	168.2	112.1	54.7	−12.1
1980	23,911.9	209.4	1.3	199.2	0.8	110.2	370.7	171.5	143.1	45.2	−12.3
1981	24,221.3	262.1	1.1	200.3	0.8	61.8	371.3	171.0	128.6	43.7	23.1
1982	24,483.4	222.3	0.9	198.7	0.8	23.6	373.1	174.4	121.1	49.4	48.1
1983	24,705.7	190.1	0.8	198.7	0.8	−8.6	373.7	175.0	89.2	50.1	47.7
1984	24,895.8	194.6	0.8	201.3	0.8	−6.7	377.0	175.7	88.2	46.8	48.1
1985	25,090.4	183.6	0.7	194.4	0.8	−10.8	375.7	181.3	84.3	46.9	48.2
1986	25,274.0	218.9	0.9	188.7	0.7	30.2	372.9	184.2	99.2	49.0	20.0
1987 (PD)	25,492.9	292.9	1.1	184.7	0.7	108.2	369.7	185.0	152.1	44.0	-
1988 (PD)	25,785.8	311.9	1.2	186.8	0.7	125.1	376.8	190.0	161.9	36.8	-
1989 (PD)	26,097.7	354.4	1.3	201.7	0.8	152.7	392.7	191.0	192.0	39.3	-
1990 (PD)	26,452.1	388.8	1.5	213.8	0.8	175.0	405.5	191.7	214.2	39.2	-
1991 (PR)	26,840.9	402.1	1.5	215.9	0.8	186.3	411.9	196.1	224.6	38.3	-
1992 (PP)	27,243.0										

[1] Difference between total growth and natural increase.
[2] Based on Employment and Immigration data.
[3] Estimates based on Family Allowance and Income Tax files.
[4] Sum of (natural increase + immigrants) − (emigrants + total growth).
(PD): Final postcensal data, based in 1986, dated from March 1991.
(PP): Preliminary postcensal data, based in 1986, dated from March 1991.
(PR): Revised postcensal data, based in 1986, dated from March 1991.
Note: The calculations are based on unrounded data.
For 1960-1986: the population consists of final intercensal estimates. Births and deaths are provided by Vital Statistics publications.
Source: Statistics Canada, Demography Division.

The situation in Saskatchewan was less discouraging than it was in 1990 and 1989. Population decline, which began in 1988, seems to have halted. Even though growth was positive at 0.2% in 1991, Saskatchewan is no more among the "population millionaires", a status acquired in 1985. The net negative migration of 8,300 individuals carried its exchange deficit to 76,300 individuals in eight years, more than 70% of which occurred over the last four years.

One would have thought that Ontario – hit hard by the recent recession – would have shown signs in its 1990 demographic growth. This, however, does not seem to be the case. In terms of the number of individuals and the rate of growth, Ontario has progressed constantly since 1980 despite being handicapped by unfavourable interprovincial movements (discussed below). Its total growth rate, provisionally evaluated at 17.6 per 1,000, represents a 20-year high with the exception of 1987. Such strong growth resulted from rising natural increase and substantial international immigration.

The demographic picture in Quebec also demands attention, where the annual rate of demographic growth has risen from 2.3 to 12.1 per 1,000 in less than 10 years. This spectacular change had less to do with natural growth than with a total reversal in net migration, which has progressed from losses of 32,500 in 1982 to estimated gains of 31,200 in 1991; 1986 was the inflection year.

In 1991, Alberta and British Columbia were the leading provinces in terms of growth. Alberta grew by 18.9 per 1,000 while British Columbia registered a 25.3 per 1,000 increase. Since their populations are of comparable size, the difference between the two rests in the components of growth. British Columbia's net migration was three times that of Alberta, and its shortfall in net migration proved too great to be compensated for by Alberta's higher level of natural growth.

Finally, the Northwest Territories and the Yukon Territory continue to show a relative flat growth curve.

Population Estimates and the Census

Accurate population estimates are required on a daily basis by users from a broad spectrum of institutions. These users have the right to be concerned as to the quality of Statistics Canada's population estimates. This, in turn, raises questions about the quality of estimates in relation to the number of Canadians enumerated by the census. Any comparison between census data and estimates must, however, take into account their respective weaknesses, particularly since estimates are based on previous census counts even if not the most recent. Furthermore, census counts are generally subject to underestimation, whereas the quality of estimates depends on the accurate collection of demographic events in the population (births, deaths, migration). These component data are generally of good quality, except perhaps for migratory flows. On the other

Summary Table, Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1984-1990

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Birth Rate (per 1,000)	1984	15.0	15.6	14.3	14.6	13.5	14.7
	1985	14.9	15.9	14.3	14.3	13.3	14.7
	1986	14.3	15.2	14.2	13.8	12.9	14.7
	1987	13.7	15.4	13.8	13.5	12.7	14.5
	1988	13.2	15.4	13.8	13.5	13.0	14.6
	1989	13.6	14.9	14.1	13.4	13.8	15.1
	1990	13.3	15.5	14.4	13.6	14.5	15.5
Total Fertility Rate (number of children per woman aged 15-49)	1984	–	1.9	1.6	1.7	1.5	1.7
	1985	–	1.9	1.6	1.6	1.5	1.7
	1986	–	1.9	1.6	1.6	1.4	1.7
	1987	1.6	1.9	1.6	1.6	1.4	1.7
	1988	1.5	1.9	1.6	1.6	1.5	1.7
	1989	1.6	1.8	1.7	1.6	1.6	1.8
	1990	1.5	1.9	1.7	1.6	1.7	1.8
Total First Marriage Rate[1] (per 1,000) (Men aged 17-49, Women aged 15-49)	1984 M	607	805	657	659	495	700
	F	657	784	677	673	521	710
	1985 M	555	723	651	659	488	695
	F	532	731	662	669	515	708
	1986 M	615	740	630	638	462	681
	F	600	765	650	653	460	698
	1987 M	623	691	651	632	449	688
	F	596	701	672	646	457	718
	1988 M	657	741	671	687	460	705
	F	634	747	710	711	488	761
	1989 M	689	795	674	678	461	727
	F	678	796	707	705	479	770
	1990 M	668	755	626	651	438	725
	F	664	753	662	682	481	769
Rate of Natural Increase (per 1,000)	1984	8.8	6.8	6.3	7.2	6.7	7.5
	1985	8.7	7.1	5.9	6.9	6.2	7.3
	1986	8.0	6.4	5.9	6.1	5.8	7.3
	1987	7.3	6.6	5.7	5.9	5.5	7.2
	1988	6.9	7.0	5.5	5.7	5.9	7.2
	1989	6.5	6.2	6.3	5.8	6.6	7.7
	1990	6.5	6.9	6.1	6.1	7.3	8.3
	1991(P)	6.8	6.9	6.0	5.9	7.5	8.2
Total Growth Rate (per 1,000)	1984	– 1.4	9.6	8.0	5.2	3.4	12.3
	1985	– 4.2	4.8	3.8	1.4	3.9	11.5
	1986	– 2.1	2.4	4.7	0.4	6.2	14.2
	1987	– 0.2	10.3	4.0	3.2	7.7	18.5
	1988	3.3	10.9	6.6	4.1	8.0	16.4
	1989	4.4	6.2	7.4	6.0	9.7	16.5
	1990	1.4	0.8	7.3	6.2	11.2	16.8
	1991(P)	4.2	– 3.8	8.2	2.6	12.1	17.6
Net Migration Rate (per 1,000)[2]	1984	– 10.2	2.8	1.7	– 2.0	– 3.3	4.8
	1985	– 12.9	– 2.3	– 2.1	– 5.5	– 2.3	4.2
	1986	– 10.1	– 4.0	– 1.2	– 5.7	0.4	6.9
	1987	– 7.5	3.7	– 1.7	– 2.7	2.2	11.3
	1988	– 3.6	3.9	1.1	– 1.6	2.1	9.2
	1989	– 2.1	0.0	1.8	0.1	3.1	8.8
	1990	– 5.1	– 6.1	1.1	0.1	3.8	8.4
	1991(P)	– 2.6	– 10.8	2.2	– 3.3	4.6	9.3

See notes at the end of this table.

Summary Table, Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1984-1990 – Continued

	Year	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Birth Rate (per 1,000)	1984	15.8	18.0	18.9	15.4	22.5	28.8	15.1
	1985	16.1	18.0	18.7	15.0	19.8	27.7	14.9
	1986	15.9	17.3	18.4	14.5	20.5	28.9	14.7
	1987	15.7	16.8	17.7	14.3	19.5	29.3	14.4
	1988	15.7	16.5	17.6	14.4	20.6	29.8	14.5
	1989	16.0	16.6	17.8	14.3	18.7	27.9	14.9
	1990	15.9	16.2	17.4	14.5	21.2	29.5	15.2
Total Fertility Rate (number of children per woman aged 15-49)	1984	1.9	2.1	1.9	1.8	2.2	3.0	1.7
	1985	1.9	2.1	1.9	1.7	1.9	2.8	1.7
	1986	1.9	2.1	1.9	1.7	2.0	3.0	1.7
	1987	1.9	2.0	1.9	1.7	2.0	3.1	1.7
	1988	1.9	2.1	1.9	1.8	2.2	3.1	1.7
	1989	2.0	2.1	2.0	1.8	2.0	2.9	1.8
	1990	2.0	2.1	2.0	1.8	2.3	3.1	1.8
Total First Marriage Rate[1] (per 1,000). (Men aged 17-49, Women aged 15-49)	1984 M	716	656	610	667	675	410	626
	F	723	672	664	695	659	468	648
	1985 M	690	634	605	638	588	348	615
	F	701	659	656	665	588	395	638
	1986 M	662	621	604	636	525	385	608
	F	687	654	643	670	604	424	620
	1987 M	659	624	603	662	493	343	606
	F	686	657	640	692	513	377	629
	1988 M	655	632	641	705	574	349	627
	F	700	677	696	756	696	343	657
	1989 M	657	653	673	712	535	349	642
	F	697	695	702	748	599	361	675
	1990 M	664	633	669	701	547	363	631
	F	706	673	710	745	629	372	674
Rate of Natural Increase (per 1,000)	1984	8.0	10.3	13.4	8.2	17.9	24.2	8.1
	1985	7.9	10.1	13.1	7.6	14.6	23.8	7.7
	1986	7.6	9.4	12.8	7.2	15.7	24.4	7.5
	1987	7.7	9.1	12.1	6.9	15.3	25.7	7.2
	1988	7.3	8.6	11.9	6.9	16.2	27.0	7.2
	1989	8.1	8.7	12.1	6.8	15.6	24.8	7.7
	1990	7.8	8.1	11.8	7.0	19.3	26.3	8.1
	1991(P)	7.7	8.1	11.5	6.9	18.9	25.8	8.0
Total Growth Rate (per 1,000)	1984	9.2	10.2	0.5	10.3	21.8	30.1	7.8
	1985	7.0	3.8	8.5	7.1	4.3	15.6	7.3
	1986	6.2	2.7	4.8	8.8	29.8	−9.6	8.7
	1987	6.0	1.4	2.7	17.3	20.7	3.9	11.5
	1988	2.4	−6.1	13.0	21.8	28.3	11.6	12.1
	1989	2.3	−8.6	17.9	25.5	19.5	15.3	13.5
	1990	3.3	−6.6	20.7	28.5	23.2	18.8	14.7
	1991(P)	4.0	−0.2	18.9	25.3	34.0	25.8	15.0
Net Migration Rate (per 1,000[2]	1984	1.2	−0.1	−12.9	2.1	3.9	5.9	−0.3
	1985	−0.9	−6.3	−4.6	−0.5	−10.3	−8.2	−0.4
	1986	−1.4	−6.7	−8.0	1.6	14.1	−34.0	1.2
	1987	−1.7	−9.1	−12.1	10.4	5.4	−21.8	4.3
	1988	−4.9	−8.6	−11.9	14.9	12.1	−15.4	4.9
	1989	−5.5	−17.3	−5.8	18.7	3.9	−9.5	5.8
	1990	−4.5	−14.8	8.8	21.5	3.8	−7.4	6.6
	1991(P)	−3.7	−8.4	7.3	18.4	14.8	0.0	6.9

See notes at the end of this table.

Summary Table, Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1984-1990 – Continued

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Population Aged 65+ as a Percentage of the Total Population on June 1	1984	8.3	12.5	11.4	10.6	9.5	10.4
	1985	8.6	12.6	11.7	10.9	9.7	10.7
	1986	8.8	12.7	11.9	11.1	10.0	10.9
	1987 (PD)	9.0	12.7	12.1	11.4	10.2	11.1
	1988 (PD)	9.2	12.8	12.2	11.6	10.5	11.3
	1989 (PD)	9.3	12.7	12.3	11.7	10.7	11.5
	1990 (PD)	9.4	12.8	12.4	11.9	10.9	11.6
	1991 (PR)	9.6	12.9	12.5	12.1	11.1	11.8
Life Expectancy at Birth (in years)	1981 M	72.0	72.8	71.0	71.1	71.1	72.3
	F	78.7	80.5	78.4	79.2	78.7	79.0
	1988 M	73.1	73.1	72.5	73.0	72.3	73.7
	F	79.3	80.9	79.6	80.2	79.8	80.0
	1989 M	73.1	72.9	72.8	73.3	72.7	74.1
	F	79.2	80.8	79.7	80.4	80.2	80.3
	1990 M (P)	73.0	72.9	73.1	73.7	73.0	74.4
	F (P)	79.3	80.7	79.9	80.5	80.6	80.6
Infant Mortality Rate (per 1,000)	1984	9.2	8.2	7.8	7.8	7.3	7.6
	1985	10.8	4.0	7.9	9.6	7.2	7.3
	1986	8.0	6.7	8.4	8.3	7.1	7.2
	1987	7.6	6.6	7.4	7.0	7.1	6.6
	1988	9.3	9.1	6.5	7.2	6.5	6.6
	1989	8.2	6.2	5.8	7.1	6.8	6.8
	1990	9.2	6.0	6.3	7.2	6.2	6.3
Rate of Pregnancies Terminated (per 1,000 women 15-44 years of age)[3]	1984	2.7	0.4	8.2	1.6	5.9	13.1
	1985	2.9	0.4	8.0	1.8	6.9	12.5
	1986	2.5	0.4	8.0	2.0	7.5	12.1
	1987	3.3	1.2	8.0	2.1	7.3	12.4
	1988	3.2	2.3	8.0	2.7	5.5	12.6
	1989	3.3	0.3	9.5	2.9	8.5	13.7
	1990	3.2	1.7	8.7	3.1	8.9	13.3
Total Divorce Rate (per 10,000 marriages)	1984	–	–	–	–	–	–
	1985	–	–	–	–	–	–
	1986	–	–	–	–	–	–
	1987	–	–	–	–	–	–
	1988	–	–	–	–	–	–
	1989	–	–	–	–	–	–
	1990	–	–	–	–	– –	–

See notes at the end of this table.

Summary Table, Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1984-1990 – Concluded

	Year	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Population Aged 65 + as a Percentage of the Total Population on June 1	1984	12.2	12.4	7.6	11.4	3.5	2.8	10.2
	1985	12.4	12.5	7.9	11.7	3.4	2.7	10.4
	1986	12.5	12.7	8.1	12.1	3.8	2.9	10.6
	1987 (PD)	12.7	12.9	8.4	12.5	3.7	2.9	10.9
	1988 (PD)	12.9	13.1	8.6	12.7	3.6	2.9	11.1
	1989 (PD)	13.1	13.4	8.8	12.9	3.8	2.8	11.3
	1990 (PD)	13.3	13.8	8.9	12.9	3.9	2.9	11.5
	1991 (PR)	13.4	14.0	9.1	13.0	4.0	2.9	11.6
Life Expectancy at Birth (in years)	1981 M	72.2	72.4	72.0	72.6	–	–	71.9
	F	78.8	79.6	79.1	79.6	–	–	79.0
	1988 M	73.4	74.2	73.9	74.0	–	–	73.3
	F	80.2	81.0	80.3	80.5	–	–	80.0
	1989 M (P)	73.7	74.4	74.2	74.4	–	–	73.7
	F (P)	80.4	81.2	80.7	80.7	–	–	80.4
	1990 M (P)	74.2	74.7	74.5	74.7	–	–	74.0
	F (P)	80.6	81.3	81.1	80.9	–	–	80.6
Infant Mortality Rate (per 1,000)	1984	8.6	9.4	9.6	8.6	13.5	17.3	8.1
	1985	9.9	11.0	8.0	8.1	10.8	16.7	8.0
	1986	9.2	9.0	9.0	8.5	24.8	18.6	7.9
	1987	8.4	9.1	7.5	8.6	10.5	12.5	7.3
	1988	7.8	8.4	8.3	8.4	5.8	10.3	7.2
	1989	6.6	8.0	7.5	8.2	4.2	16.2	7.1
	1990	8.0	7.6	8.0	7.5	7.2	12.0	6.8
Rate of Pregnancies Terminated (per 1,000 women 15-44 years of age)[3]	1984	9.1	5.4	11.2	16.7	14.7	18.4	11.2
	1985	9.2	5.1	11.0	16.4	14.8	19.7	10.8
	1986	10.2	4.6	10.5	16.5	18.9	19.2	10.7
	1987	10.5	5.4	9.2	16.5	21.3	18.7	10.7
	1988	11.2	5.7	10.4	15.4	16.9	21.1	11.0
	1989	11.1	6.1	10.9	15.5	19.3	19.4	11.6
	1990	9.7	6.1	10.8	15.7	19.8	24.5	14.0
Total Divorce Rate (per 10,000 marriages)	1984	–	–	–	–	–	–	3,306
	1985	–	–	–	–	–	–	3,121
	1986	–	–	–	–	–	–	3,799
	1987	–	–	–	–	–	–	4,314
	1988	–	–	–	–	–	–	3,748
	1989	–	–	–	–	–	–	3,982
	1990	–	–	–	–	–	–	3,827

[1] Rates are calculated using the average estimates of the population as of January 1, for successive years.
[2] Due to the use of different methods of calculation and data, the results for 1986 and onward are not entirely comparable to the results of previous years.
[3] At the provincial level, the rates only cover therapeutic abortions. At the national level, the rates cover all known abortions.

Note: For the years 1981-1987, see the 1988 Report.

Table 2. Census Population in 1991 and Estimated Population for June 1, 1991, Canada, Provinces and Territories

Provinces	Census Population on June 4, 1991 adjusted to June 1, 1991[1]	Estimated Population[2] June 1, 1991 (PR)	Difference	Difference in %
Newfoundland	568,474	575,381	6,907	1.22
Prince Edward Island	129,760	130,829	1,069	0.82
Nova Scotia	899,898	904,757	4,859	0.54
New Brunswick	725,941	727,950	2,009	0.28
Quebec	6,904,911	6,909,234	4,318	0.06
Ontario	10,098,764	10,112,890	14,126	0.14
Manitoba	1,092,655	1,098,662	6,007	0.55
Saskatchewan	989,338	997,911	8,573	0.87
Alberta	2,551,470	2,545,282	−6,188	−0.24
British Columbia	3,284,489	3,260,331	−24,158	−0.74
Yukon	27,888	26,991	−897	−3.22
Northwest Territories	57,640	55,063	−2,577	−4.47
Canada	27,331,233	27,345,281	−14,048	0.05

[1] Including estimates of incompletely enumerated Indian Reserves.
[2] Like the census, the June 1 estimate includes non-permanent residents (344,896).

Source: Statistics Canada: 1991 Census, Demography Division, Population Estimates Section.

hand, the quality of one or another source depends on the geographical level considered. The total being the sum of its parts, it is possible that errors, most likely of the same magnitude but in opposite directions, may appear at the sub-national level, only to disappear at aggregation to the national level.

Table 2 shows how Demography Division's estimates compare with the results of the unadjusted 1991 Census results: the differences are small.

The evaluation of the quality of census counts, prepared after each census and offering a measurement of net enumeration error, is not available at the time of printing. The reader may bear in mind however, that at national level, the 1986 Census was underenumerated by 3.2%, and the 1981 Census by 2.01%.[2]

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[2] See: Statistics Canada, *Postcensal Annual Estimates of Population by Marital Status, Age, Sex and Components of Growth for Canada, Provinces and Territories*, Annual, Catalogue No. 91-210; Statistics Canada, *User's Guide to the Quality of the 1986 Census Data: Coverage*, Catalogue No. 99-135E.

CANADA AND THE INDUSTRIALIZED WORLD

An Overview

The Canada-U.S. Free Trade Agreement will appear in the future only as a prelude to the creation of a North American unit, and perhaps Mexico will already have joined by the time this report is published. Such a commercial and economic entity will undoubtedly have social and demographic consequences in the medium and long term.

The inspiration behind the North American Free Trade Agreement is not, however, American. Europe has been pursuing integration for a long time and, in spite of many obstacles, tremendous progress has been achieved. The European Economic Community (called the Europe of Twelve) since May 2, 1992 has become only the major component of the European Economic Space (EES), which includes the European Free Trade Association (EFTA). The industrialized world is currently organizing itself into economic blocs. In the more or less near future, the Eastern European countries that have been freed from the Soviet grip, when they will have solved their internal problems will also have to integrate existing operational frameworks or find new ones – for pressing economic reasons. Some organizations will have to be developed for a few isolated countries like Australia, New Zealand and Japan, and other newcomers like Korea, Thailand and more.

Within and between these blocs, social and economic divergences and convergences will be at the origin of, or will result in, demographic fluctuations. It is therefore important to monitor the evolution of the Canadian population at the same time as that of the other industrialized countries and blocs.

The size of the European Economic Space, in terms of its population, is comparable to what may already be called the North American Economic Space (379 million for the former and 337 million for the latter) (Table 3). If the comparison is applied strictly to the Europe of Twelve (346 million), then the two are virtually equal in size. For now, however, further comparisons should not be drawn. In truth, the EES is not homogeneous, but the countries whose characteristics differ most from the average – for instance Greece and Ireland – are less divergent than is Mexico to the Canada/U.S. unit. In addition, the EES outliers represent only small populations, whereas Mexico accounts for one-quarter of the North American Economic Space. Mexico is to North America what Turkey would be to Europe were it to join the EES.

Demographic Phenomena

Even without taking Mexico (still in the depths of its demographic transition) into account, the North American population shows very high natural increase compared with Europe. The excess of births over deaths is four times that of

Table 3. Main Demographic Indicators, 1991 – Industrialized Countries

Country	Population on January 1, 1992 (in thousands)	Total Increase (in thousands)	Births (in thousands)	Deaths (in thousands)	Natural Increase (in thousands)	Net Migration[1] (in thousands)
Belgium	10,022.0	3.5	126.1	105.2	20.9	14.1[a]
Denmark	5,162.1	3.1	64.5	59.5	5.0	10.9
Germany	80,170.0	5.2	828.3	900.8	−72.5	490.0
Greece	10,250.0	4.9	100.0	93.5	6.5	43.5
Spain	39,055.9	1.6	386.5	338.2	48.3	13.8[a]
France	57,206.2	5.5	758.4	526.0	232.4	80.0
Ireland	3,532.0	3.7	52.7	31.5	21.2	−8.0[a]
Italy	57,788.2	0.8	558.8	546.8	11.9	34.9
Luxembourg	389.8	14.0	5.0	3.7	1.2	4.2
Netherlands	15,128.6	8.7	198.6	129.9	68.7	62.8
Portugal	9,845.6	−1.3	116.4	104.4	12.1	25.0
United Kingdom	57,642.0[a]	2.7[a]	792.5	643.1	149.4	6.8[a]
EEC Members	**346,192.4**	**3.6**	**3,987.8**	**3,842.7**	**505.1**	**728.1**
Austria	7,860.8	8.9	94.6	83.4	11.2	58.7
Finland	5,029.3	6.1	65.7	49.1	16.5	13.8
Iceland	259.7	14.5	4.5	1.8	2.7	1.0
Norway	4,273.6	5.6	60.8	44.9	15.9	8.0
Sweden	8,644.1	6.2	123.6	95.0	28.6	25.0
Switzerland	6,831.9	11.8	85.7	62.5	23.2	56.9
Leichtenstein	29.4	8.7	0.4	0.2	0.2	...
EFTA	**32,928.9**	**8.0**	**435.3**	**337.9**	**98.3**	**163.5**
EEA	**379,121.3**	**4.0**	**4,423.1**	**3,819.7**	**603.4**	**891.5**
Canada	27,243.0	15.0	411.9	196.1	215.8	186.3
United States	253,668.0	11.0	4,111.0	2,165.0	1,946.0	857.0
Mexico	87,241.4	22.0	2,461.8	481.5	1,980.3	−143.6
North America	**337,121.4**	**...**	**6,984.9**	**2,842.6**	**4,142.3**	**...**
Australia	17,652.3	14.0	256.8	118.9	138.0	100.0[a]
New Zealand	3,449.6	11.0	60.2	26.5	33.6	5.7
Japan	120,000.0	5.0	1,223.2	829.5	393.7	257.7

See notes at the end of this table.

Table 3. Main Demographic Indicators, 1991 – Industrialized Countries – Concluded

Country	Infant Mortality Rate[2]	Life Expectancy[3]		Total Fertility Rate[4]	Marriages		Divorces	
		Men	Women		Marriages (in thousands)	Rate (per thousand)[5]	Divorces (in thousands)	Rate (per thousand)
Belgium	8,4	72.7[a,8]	79.4[a,8]	1.57	60.8	6.1	20.8	2.1
Denmark	7.3[8]	72.0[a,8]	77.7[a,8]	1.68	30.9	6.0	12.6	2.5
Germany	7.2[a]	...	...	1.35[a]	453.3	5.7	176.7[7]	2.2[7]
Greece	10.0	73.6[8]	78.6[8]	1.40	62.0	6.1	6.0	0.6
Spain	7.8	73.4[8]	80.1[a,8]	1.28	219.8	5.6	23.1[7]	0.6[7]
France	7.4	73.0	81.1	1.77	280.5	4.9	105.8[8]	1.9[8]
Ireland	8.2	71.9[a,8]	77.4[a,8]	2.18	16.9	4.8	...	...
Italy	8.3	73.2[a,6]	79.7[a,6]	1.26	309.1	5.4	26.5	0.5
Luxembourg	9.2	72.3[a,8]	78.5[a,8]	1.64[a]	2.6	6.7	0.8	2.0
Netherlands	6.5	73.7	79.8	1.61	94.9	6.3	28.0	1.9
Portugal	10.8	70.2[a,8]	77.3[a,8]	1.42[a]	71.8	7.3	10.6	1.1
United Kingdom	7.3	72.9[a,8]	78.5[a,8]	1.82[a]	390.0[a]	6.8[a]	167.5[8]	2.9[8]
EEC Members	**7.7**	**72.7[6]**	79.3[6]	**1.56**	**1,922.5**	**5.8**	**580.0**	**1.7**
Austria	7.5	72.6	79.2	1.50	44.1	5.6	16.4	2.1
Finland	5.8	70.9[8]	78.9[8]	1.71	23.6	4.7	12.8	2.6
Iceland	5.5	75.7[8]	80.3[8]	2.19	1.2	4.8	0.5	2.1
Norway	6.9[8]	73.4[8]	79.8[8]	1.92[a]	20.3	4.8	10.3	2.4
Sweden	6.1	75.0	80.5	2.10	35.9[a]	4.2	19.5	2.3
Switzerland	6.9	74.0	80.8	1.60[a]	46.3	6.8	13.7	2.0
Leichtenstein	...	69.5	73.6	...	0.4	12.1	...	1.2
EFTA	**6.6**	**73.5**	**79.9**	**1.79**	**171.7**	**5.2**	**73.2**	**2.2**
EEA	**7.6**	**72.8**	**79.4**	**1.57**	**2,164.2**	**5.7**	**653.2**	**1.7**
Canada	7.0	74.0	80.6	1.82[8]	188.7	7.0	78.0	2.9
United States	9.2	...	...	2.01[7]	2,371.0	9.4	1,187.0	4.7
Mexico	37.0	66.5	73.1	3.29	652.4	7.6	49.2	0.6
North America	...	...	...	...	...	...	...	...
Australia	7.2	73.9	80.0	1.91	113.8	6.6	45.6	2.6
New Zealand	8.3	71.9	78.0	2.18	23.3	6.8	9.0	2.6
Japan	4.4	76.1	82.1	N/A	742.3	6.0	169.0	1.4

[a] Eurostat estimates.
[1] Difference between immigrants and emigrants.
[2] Per thousand live births.
[3] In years and tenths of years.
[4] Number of children per woman.
[5] Per thousand persons.
[6] In 1988.
[7] In 1989.
[8] In 1990.

N/A: Not available.
Note: Rates are calculated on the average population for 1991.
Sources: For Europe: Eurostat.
For Canada: Statistics Canada.
For United States: U.S. Bureau of the Census and N.C.H.S.
For New Zealand: Data provided by the Department of Statistics.
For Australia: Data provided by the Australian Bureau of Statistics.
For Japan: Data provided by the Statistical Standards Department.
For Mexico: Data provided by the Instituto Nacional de Estadistica, Geografia e Informatica.

Europe (more than 2 million versus 500,000). Differences in migration flows are not as great as expected, given the traditional perception of North America as a land of immigrants. The immigration flows in the two blocs are different in nature and therefore bring dissimilar consequences.[3] While immigration into Canada and the United States amounted to 671,000 people in 1991, it totalled 891,000 in all of Europe. In both cases, however, the figures do not reflect precisely what the word "immigration" suggests, because migrations within blocs cannot be dissociated from migrations out of the blocs.

In Mediterranean Europe, the total fertility rate continues to decline. Greece, Spain, Italy and Portugal have rates lower than any ever recorded in Quebec. Northern Europe - in contrast with Southern Europe and mainly as a result of the change in the tempo of births - shows a certain resurgence in the birth rates. In the former "new countries" (Australia, New Zealand, Canada and the United States) the total fertility rate is also on the rise.

In the Europe of Twelve, different growth patterns coexist. Germany, in spite of negative natural growth, still has by far the highest total population growth due to intense immigration. In 1991, a large number of people of German descent living in Eastern European countries were able to resettle in the reunified country of their ancestors. By contrast, three-quarters of France's population growth is attributable to its natural increase, the highest in Europe in absolute numbers. The United Kingdom's net migration was negligible and its natural increase was only half that of France, which has a very similar population.

Diversity extends to other demographic behaviours. The infant mortality rates appear to be the lowest in Finland and Iceland. In Canada, growth by natural increase still exceeds growth by net migration. This is even more so in the United States, where net migration represents only half the growth attributable to natural increase. Mexico's excess of births over deaths equals that of the United States - a country whose population is four times larger.

Nuptiality, roughly measured by crude rates, appears lowest in Sweden. It is low in other Scandinavian countries as well, while it appears to reach its highest level in the United States. During 1991, there were twice as many marriages in the United States as in the whole of Europe. Conversely, divorce rates are the highest in the United States, and the lowest in Italy. The relatively recent liberalization of divorce in Italy has apparently not had the repercussions experienced in 1968 in Canada, when the first law giving fairly easy access to divorce was adopted.

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[3] People who immigrate for work-related reasons, who account for a significant proportion of the influx in Europe, return (sometimes under pressure) to their place of origin even though many end up settling in the country of arrival.

AGE STRUCTURE

The age pyramid of Canada's population, drafted using 1991 Census data, highlights mainly the 20 age brackets that form the block of baby boomers. For approximately the last 25 years, the sides of the histogram have grown relatively evenly as a result of the combined effects of natality and migration.

Often, the demographic literature underlines the socio-economic problems that will occur when the first baby boomers reach old age in about 20 years. Yet, before then, a temporary rise in the number of old people will occur when the relatively numerous cohorts of people born after the First World War progressively replace the hollow cohorts of those born during that war. The number of people in their seventies in 2001 will be larger than it was in 1991 (1.83 million versus 1.44 million).[4] Those over age 80 will be almost twice as numerous as they are today (1.01 million compared to 660,000). This burden will not really be lightened by a smaller number of people in their sixties – numbering 2.41 million as opposed to the current 2.25 million (see pyramid and Table 4). As the needs of the very elderly are greater, the requirements will exceed the proportional increase among the old age population. Those aged 70 and over, who currently represent 48% of those over age 60, will account for 54% in 2001. All things being equal, however, this proportion of aged people in the population will be maintained until the small cohorts from the depression years of the 1930s join this segment of the population.

Finally, the base of the pyramid bears the slight marks of the rise in births since 1989.

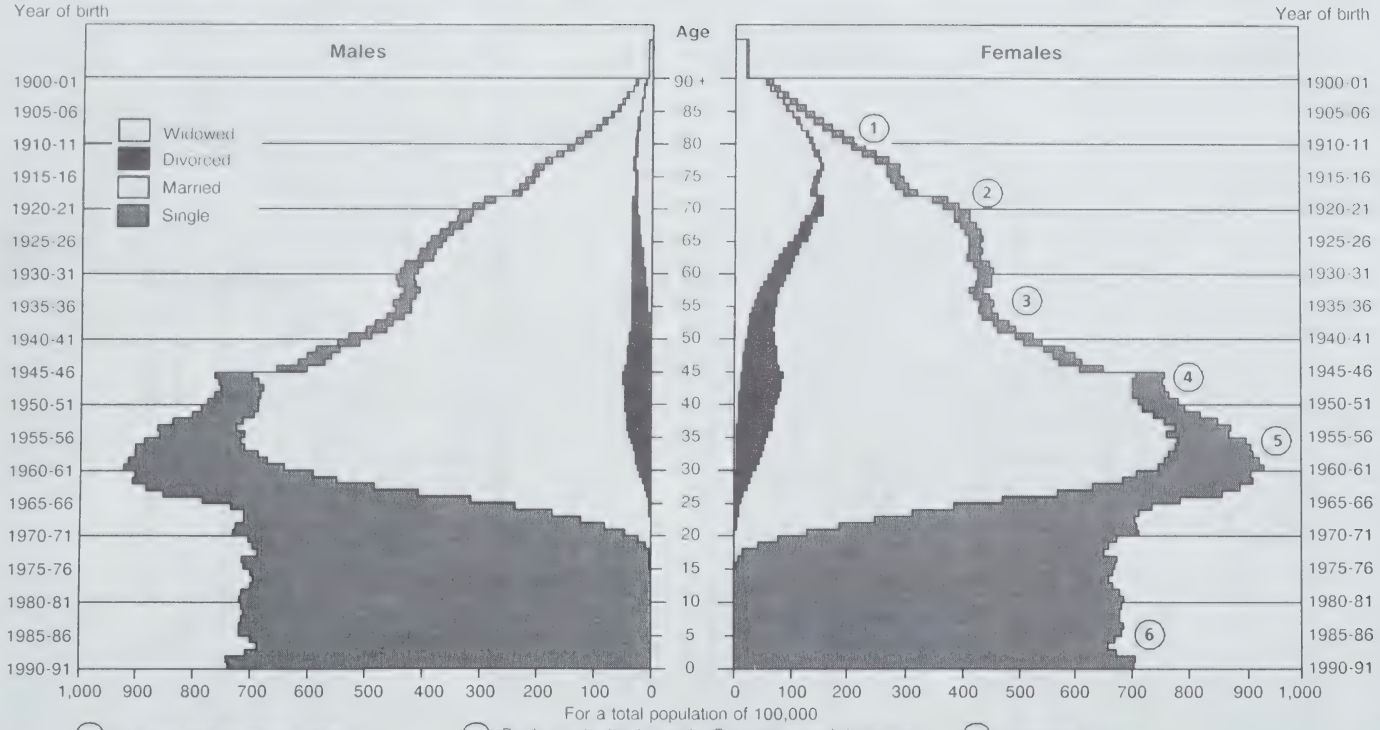
Table 4. Canadian Population Aged 60 Years and Over by Age Group for Selected Years

Age Groups	Year		
	1991	2001	2011
60-69 years	2,249.9	2,407.2	3,484.3
70-79 years	1,436.7	1,829.5	1,993.4
80 years and over	660.2	1,011.4	1,376.2
Percentage aged 70 and over	48	54	49
Percentage aged 80 and over	15	19	20

Source: Statistics Canada, Demography Division, Projections Section.

[4] According to population projections from the Demography Division.

Figure 1
Age Pyramid of the Canadian Population, June 4 1991



(1) Effect of excess male mortality
(2) Decline in births during World War I
(3) Decline in births during the Depression and disruption of immigration until the end of World War II
(4) Upturn in births after World War II
(5) Baby boom
(6) Recent drop in fertility

Source: Estimates section, Demography Division

Age Structure by Marital Status

On the 1991 Census, respondents were asked to state their legal marital status. Some may have misunderstood the question, since the meaning of "legal" may be obscure for some new Canadians from other cultures. But this could only have been the case for a minimal segment of the population. For the vast majority, the concepts of single, married, widowed and divorced persons are clear. This understanding allows, beyond the three previous censuses, a comparison with the Canadian society of 20 years ago.[5] Until 1971, common-law unions were rare and divorces few. Comparing the proportions of the different statuses at the same age shows the extent to which society has been transformed (Table 5).

All ages combined, the male population aged 15 and over in 1991 comprises more singles (34.2% versus 31.6%), more divorced persons not remarried (5.3% as opposed to 0.1%), and fewer married persons (58.2% compared with 64.9%) than the 1971 population. The changes were similar for the female population, - more single persons in 1991 than in 1971 (27.4% instead of 25%), more divorced persons (6.6% versus 1.3%), and fewer married (55.6% up from 63.9%). But these global changes obscure much greater differences in the unfolding of the generations; these can be expressed by examining the proportion of individuals in different statuses at the same age over time.

Postponing Marriage

Up to age 50, the more recent the cohort, the larger the number of single persons it contains. In the group of male cohorts 20 to 24 years of age at the time of the 1971 census, only 67.6% were still single. This in comparison to the 91% who were still bachelors in 1991. Among women, the corresponding values are 43.5% versus 78.5%. This observation is valid at all ages - an indicator of the postponement of marriage without presuming its final intensity among the different cohorts.

From an historical perspective, the modern generations clearly have fewer singles at age 50 than the much older generations. For those who were 30 to 50 years of age in 1971, about 7.5% were still single beyond age 50 in 1991, while generations 20 years older had more than 10% at the same ages. The same applies - with a few subtle differences - to the female population. But the present decline in nuptiality is obvious and, indicates that the situation will be reversed again in the near future.

An Increase of Divorced Persons

The status of a divorced person is a transitory state, since after remarriage the person is counted among those who are married. However, divorced men

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[5] In 1981 and in 1986, persons living common-law were considered as "married".

Table 5. Distribution of the Canadian Population by Marital Status, 1971-1991

Age Groups	Single		Married		Separated		Married/Separated		Widowed		Divorced	
	1971	1991	1971	1991	1971	1991	1971	1991	1971	1991	1971	1991
	Men											
15-19	98.4	99.4	1.4	0.4	0.1		1.5	0.5	0.1			
20-24	67.6	90.6	31.1	8.6	0.9	0.5	32.0	9.0	0.1		0.2	0.3
25-29	25.6	58.6	71.2	37.5	2.1	1.8	73.3	39.3	0.2		0.9	2.0
30-34	13.3	33.0	82.7	58.8	2.5	3.0	85.1	61.8	0.3	0.1	1.3	5.1
35-39	10.3	19.6	85.3	68.3	2.6	3.7	87.9	72.1	0.4	0.2	1.5	8.1
40-44	9.4	12.2	85.5	73.4	2.8	4.1	88.3	77.5	0.7	0.5	1.6	9.9
45-49	9.1	8.9	85.1	75.9	3.0	4.1	88.1	80.0	1.1	0.8	1.6	10.4
50-54	8.7	7.6	84.9	78.1	3.1	3.6	88.0	81.7	1.8	1.4	1.5	9.3
55-59	9.2	7.3	83.3	79.3	3.2	3.2	86.4	82.5	2.9	2.4	1.5	7.8
60-64	9.7	7.5	81.1	79.3	3.1	2.9	84.3	82.2	4.7	4.2	1.3	6.2
65-69	10.8	7.2	77.3	78.9	3.1	2.6	80.4	81.5	7.7	6.8	1.1	4.6
70-74	10.9	6.8	72.0	77.3	3.1	2.3	75.1	79.6	13.1	10.4	1.0	3.3
75-79	10.3	7.0	65.8	72.7	2.7	2.1	68.5	74.8	20.4	15.8	0.7	2.4
80-84	10.0	7.4	55.4	64.6	2.7	2.0	58.1	66.5	31.3	24.2	0.6	1.8
85-89	10.3	8.4	43.1	52.7	2.7	1.9	45.7	54.6	43.5	35.8	0.5	1.3
90 +	10.4	10.7	31.6	37.6	2.7	1.8	34.4	39.3	54.8	48.5	0.5	1.5
Total	31.6	34.2	62.8	55.6	2.2	2.6	64.9	58.2	2.5	2.3	0.1	5.3
	Women											
15-19	92.5	98.5	7.0	1.3	0.3	0.1	7.3	1.4	0.1	0.1	0.1	0.1
20-24	43.5	78.5	53.7	19.3	2.0	1.3	55.7	20.7	0.3	0.1	0.5	0.8
25-29	15.4	42.0	79.3	50.8	3.2	3.3	82.5	54.1	0.5	0.2	1.5	3.8
30-34	9.1	23.2	84.6	64.6	3.5	4.2	88.1	68.8	0.9	0.5	2.0	7.5
35-39	7.3	14.3	85.4	69.5	3.6	4.6	89.0	74.1	1.6	0.9	2.1	10.7
40-44	6.9	9.5	84.5	71.5	3.8	4.7	88.3	76.2	2.7	1.7	2.1	12.5
45-49	7.0	7.3	82.3	72.3	3.8	4.3	86.0	76.6	5.0	3.3	2.0	12.8
50-54	7.7	6.2	78.0	73.2	3.6	3.7	81.6	76.8	8.8	6.1	1.9	10.9
55-59	9.0	5.8	71.4	71.4	3.4	3.2	74.8	74.6	14.5	10.8	1.7	8.7
60-64	10.2	6.0	62.7	66.2	3.1	2.7	65.8	68.9	22.6	18.3	1.5	6.8
65-69	10.7	6.3	52.4	58.1	2.8	2.2	55.2	60.3	33.0	28.5	1.1	4.9
70-74	10.5	7.1	40.2	46.6	2.4	1.8	42.6	48.4	46.1	41.1	0.7	3.4
75-79	10.6	8.5	28.9	33.5	2.1	1.4	31.0	34.8	57.9	54.4	0.5	2.3
80-84	10.7	9.6	18.2	20.9	2.0	1.0	20.2	21.9	68.8	67.1	0.4	1.4
85-89	10.7	10.2	11.0	11.3	1.8	0.7	12.8	11.9	76.1	76.9	0.4	0.9
90 +	12.1	11.0	6.7	5.5	1.5	0.5	8.2	60.0	79.3	82.3	0.3	0.7
Total	25.0	27.4	61.1	52.6	2.7	3.0	63.9	55.6	9.8	10.4	1.3	6.6

N/A: Not available.

Source: Statistics Canada, *1971 Census*, Catalogue No. 92-730; *1991 Census*, Catalogue No. 93-310.

and women do not always remarry, and the prevalence of divorce is indicated by the number of divorced persons at census. Examination of the 1991 Census reveals a steep increase at all ages for both sexes.

Less Widowers and Less Widows

After age 65, the switch in proportions from married to widowed between 1971 and 1991 is obvious. While singles and, to a certain degree, divorced persons, are involved in this switch, this phenomenon is obviously indicative of the decline in mortality at the end of adult life and the onset of old age. At very old ages, the difference persists only among men, indicating what is being observed year after year: the probability of survival increases more among women than among men.

MARITAL STATUS

Introduction

Social change results from actions taken day after day by individuals. Although these changes are registered when they occur, their effect on society can only be measured when an opportunity for assessment arises - at census, for example. On the basis of the 1991 Census, a few general outlines of conjugal life patterns currently prevailing among Canadian men and women were made possible, along with a measurement of the scope of change over time. Four aspects were considered:

- living in a couple;
- living alone;
- common-law unions; and,
- single-parent families.

Only dominant characteristics are considered here.

Living in a Couple

Comparing the 1991 Census with previous censuses requires some care. Since non-permanent residents were included in the 1991 Census, the total population increased by about 250,000 persons over what it would have been, had the census not expanded its universe. For civil status, the introduction of common-law unions as a conjugal type may also have slightly disrupted the estimate of the number of people living in couples. However, Statistics Canada has published a table parallel to the one providing the legal civil status of individuals, using the same rules as in 1981 and 1986.[6] The "de facto" marriage structure of the Canadian population at three different times - 1981, 1986 and 1991 - can thus be compared with a very small risk of statistical error.

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[6] Statistics Canada. *Age, sex, marital status*, Catalogue No. 93-310.

Between 1981 and 1986, for all ages to age 50 and for both sexes, a decline in the proportion of the population living in a couple, namely people claiming to be married or involved in a common-law union, had been observed. The 1991 Census shows that the trend persists. To explain this, one must conclude that the rate at which unions are established has been lower than the rate of breakdown.

This is more difficult to explain in detail because marriage, divorce, remarriage and widowhood modify the marital status of individuals. In addition, the Canadian population is open to immigration.

From a generational perspective, the first three groups of cohorts, namely those comprising people between 15 and 29 years of age in 1981, have seen an increase with time in the proportion of their members who married as they got older, (from 1981 to 1986, and to 1991, except women reaching the ages of 35 to 39 in 1991). This is a normal evolution since these are ages at which single life is gradually discontinued. However, at equal ages (from ages 15 to 24), the decrease in the proportion of those living in couples through successive censuses is attributable, at least in part, to increased age at marriage. The number of brothers and sisters in families is smaller, and the number of parents who are better-off financially is greater. Jobs providing independence are few, which is an incentive for youth to extend their studies. Thus, single life tends to be prolonged. But this progressing age at marriage and perhaps also the rejection of life in a couple during the last 10 years can be noticed among members of older cohorts: at equal age, at successive censuses, the number of members living in couples among relatively old cohorts is significantly lower in proportion. For example, the proportion of women between the ages of 25 and 29, dropped from 78.6% in 1981 to 71.4% in 1986 and finally to 65.7% in 1991.

The other five groups of cohorts - those whose members were between 30 and 54 years of age in 1981 - also show, from one census to the next, a decline in the proportion of members living in couples, particularly between 1986 and 1991. This phenomenon is much more pronounced among women than among men. For those older cohorts, a first marriage has had much less impact. Most obviously, widowers, widows and divorced persons are much less frequently settling-in again with someone. For example, 86.9% of women aged from 40 to 44 in 1981 were living in couples. Five years later (when they were from 45 to 49 years of age), only 83.2% were still part of a couple, and a further five years later (in their fifties) only 76.8% were still in the same situation. Widowhood and divorce not followed by remarriage or, more broadly, by reconstitution of a couple, account for the decrease. But at equal age, at successive censuses, the proportions decline even more. The age difference in magnitude of the phenomenon between men and women is likely attributable to the difference in the number of candidates for conjugal living at advanced adult ages. The sex imbalance, however, accounts only partly for the low levels obtained, which in turn imply an increase in the proportion of people living

Table 6. Changes in the Age Structure of the Canadian Population and Persons Living as Couples, 1981, 1986, 1991

Age	Population	Living as Couples	%	Population	Living as Couples	%	Population	Living as Couples	%	Changes in the Population		Changes in the Number of Persons Living as Couples	
	1981			1986			1991			1981-86	1986-91	1981-86	1986-91
	Men												
15-19	1,182,015	18,115	1.5	985,225	11,955	1.2	958,405	10,895	1	−16.6	−2.7	−34.0	−8.9
20-24	1,174,295	326,060	27.8	1,131,450	232,935	20.6	985,220	174,770	18	−3.6	−12.9	−28.5	−25.0
25-29	1,084,410	719,435	66.3	1,164,990	687,495	59.0	1,182,575	609,070	52	7.4	1.5	−4.4	−11.4
30-34	1,021,480	838,315	82.1	1,083,770	836,565	77.2	1,237,685	868,670	70	6.1	14.2	−0.2	3.8
35-39	822,295	714,815	86.9	1,011,055	849,075	84.0	1,133,670	876,595	77	23.0	12.1	18.8	3.2
40-44	674,665	593,165	87.9	810,935	699,030	86.2	1,042,180	842,335	81	20.2	28.5	17.8	20.5
45-49	634,705	557,280	87.8	659,965	572,915	86.8	824,200	679,260	82	4.0	24.9	2.8	18.6
50-54	621,660	539,745	86.8	616,195	532,775	86.5	663,285	552,325	83	−0.9	7.6	−1.3	3.7
55-59	568,385	490,155	86.2	593,605	507,805	85.5	608,085	506,420	83	4.4	2.4	3.6	−0.3
60-64	462,385	395,205	85.5	530,465	449,830	84.8	571,940	469,840	82	14.7	7.8	13.8	4.4
65+	1,010,850	763,995	75.6	1,133,335	868,740	76.7	1,330,425	1,001,760	75	12.1	17.4	13.7	15.3
Total	9,257,145	5,956,285	64.3	9,721,200	6,249,120	64.3	10,537,675	6,591,945	63	5.0	8.4	4.9	5.5
	Women												
15-19	1,132,875	74,365	6.6	939,605	42,900	4.6	910,230	38,380	4.2	−17.1	−3.1	−42.3	−10.5
20-24	1,169,520	561,285	48.0	1,121,890	439,210	39.1	976,650	328,180	33.6	−4.1	−12.9	−21.7	−9.9
25-29	1,093,200	839,640	76.8	1,176,520	840,015	71.4	1,192,960	775,805	65.0	7.6	28.0	-	−10.8
30-34	1,017,100	857,290	84.3	1,101,880	892,305	81.0	1,253,360	941,120	75.1	8.3	13.7	4.1	5.5
35-39	807,955	693,870	85.9	1,015,120	847,185	83.5	1,150,810	892,315	77.5	25.6	13.4	22.1	5.3
40-44	663,240	569,710	85.9	803,785	671,625	83.6	1,044,715	812,805	77.8	21.2	30.0	17.9	21.0
45-49	620,645	525,585	84.7	655,915	545,395	83.2	816,580	632,450	77.5	5.7	24.5	3.8	16.0
50-54	621,815	507,690	81.6	613,140	497,710	81.2	662,170	508,745	76.8	−1.4	8.0	−2.0	2.2
55-59	611,530	469,605	76.8	609,590	467,875	76.8	614,835	453,980	73.8	−0.3	0.9	−0.4	−3.0
60-64	516,930	355,130	68.7	594,670	415,590	69.9	604,765	410,195	67.8	15.0	1.7	17.0	−1.3
65+	1,350,130	538,720	39.9	1,564,150	642,255	41.1	1,839,545	755,170	41.1	15.9	17.6	19.2	17.6
Total	9,604,940	5,992,890	62.4	10,196,265	6,302,065	61.8	11,066,630	6,549,135	59.2	6.2	8.5	5.2	3.9

Source: Statistics Canada, *Census of Population*, Catalogue Nos. 92-901 (1981), 93-101 (1986) and 93-310 (1991). (Universe: Total Population).

alone. While increasing economic independence, especially among women, can be offered as an explanation, perhaps there is also a new phenomenon: an increasing number of individuals fear that their possessions and assets may be put at risk by constituting a couple either through marriage or living common law, in view of the growing body of legislation regarding property sharing. This legislation applies equally to common-law and married spouses when a breakdown occurs.

Single-parent Families

The family in its broadest sense[7] is a transient social cell, and the number of families varies independently from the number of individuals who are part of them. The total number of family units rose by 16.3% from 1981 to 1991, mainly because of an increase in the number of childless families (28.2%), while the number of families with children grew by only 10.8% (Table 7). Such a change is attributable to several factors. In terms of gains, the change can be attributable to an increase in unions involving youth, often times still childless, while the losses can be accounted for by breakdowns for reasons of death, divorce, separation of childless couples, and children of single-parent families leaving the household. Unfortunately, accurate quantification of such events is impossible. Also, it has to be kept in mind that late marriage and late childbearing during the last 10 years could only have contributed to slowing the growth in numbers, while the life expectancy increase tended to accelerate.

More than any other units, the single-parent family is a temporary social cell. It results from a child being born to a single woman living alone, or from such a woman adopting a child, or from the breakdown of a couple (married or in a common-law union) with at least one child. It may also result from the death of a spouse in a couple with at least one child, or from the change in custody of unmarried children from a separated couple. This unit ceases to exist when: the last child leaves home; the single woman marries; the divorced person remarries or begins a common-law union; the child or the parent dies; or finally, when a separated couple reunites.

A husband-wife family or a common-law union with at least two children may, in the event of a breakdown, constitute either one or two single-parent families. A family with a single child whose parents separate may result in two single-parent families if the child's custody is shared.

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[7] From the census point of view, a family is either two people of opposite sex who constitute a married couple, with or without children, a couple involved in a common-law union, with or without children, or a lone person, regardless of his or her marital status, as long as this person is living with his or her never-married child in the same household.

Table 7. Variations in the Number of Families According to Different Categories, 1981-1991

	1981	1986	1991	Increase 1981-1991
Total Number of Families	6,324,975	6,734,980	7,356,165	
Increase (%)	-	6.5	9.2	16.3
Number of Childless Families	2,012,560	2,301,545	2,579,850	
Increase (%)	-	9.4	17.0	28.2
Number of Two-Parent Families with Children	3,598,405	3,679,785	3,821,610	
Increase (%)	-	2.3	3.9	6.2
Number of Single-Parent Families	714,005	853,640	954,710	
Increase (%)	-	19.6	11.8	33.7
Ratio of Single-Parent Families to Two-Parent Families (%)	16.6	18.8	20.0	
Common-Law Unions	356,610	486,940	725,950	
Increase (%)	-	36.5	49.1	103.6
Percentage of Single-Parent Families Among All Families with Children	16.5	18.8	20.0	

Source: Statistics Canada: *1981 Census*, Catalogue No. 92-905; *1986 Census*, Catalogue No. 93-106; *1991 Census*, Catalogue No. 93-312.

As well, a child is understood to be a son or a daughter born to, or adopted by, a person, regardless of the son or daughter's age, as long as he or she was never married. Common-law unions are frequent among youth, and a short common-law union involving a son or a daughter before he or she returns to the parental home leaves no statistical trace. This cannot occur when a marriage took place.

The great complexity and diversity of the single-parent world is readily discernable as is the high instability of participants.[8] As a result, analysis of numerical change processes is made virtually impossible. For this reason, comments about the current situation are rather scanty, considering the importance of the social consequences inferred by this phenomenon.

The number of single-parent families rose between 1981 and 1991. This increase, however, was irregular (Table 7). From 1981 to 1986, they grew by 19.6%, while they increased by only 11.8% over the following five years. As interesting as this may be, it indicates only that the progression has recently slowed down, while revealing nothing about cause. Over the same two periods,

[8] M. Moore. "Female Lone Parenting Over the Life Course", *The Canadian Journal of Sociology*, Fall 1989.

Table 8. Prevalence Rates of Families Headed by a Single Parent (in %)

Province	1981	1986	1991
Newfoundland	12.7	14.2	15.9
Prince Edward Island	16.7	17.5	18.5
Nova Scotia	17.3	19.0	20.4
New Brunswick	16.8	18.5	19.7
Quebec	17.6	20.8	21.7
Ontario	16.3	17.8	19.3
Manitoba	16.9	18.7	20.4
Saskatchewan	14.6	17.0	18.5
Alberta	15.0	17.6	19.0
British Columbia	17.3	20.1	20.3
Yukon	18.1	21.3	21.7
Northwest Territories	16.4	20.0	20.2
Canada	16.6	18.8	20.0
Standard deviation	1.47	1.73	1.49

Source: See Table 7.

the increase in two-parent families was much smaller (2.3% and 3.9%). As a result, the proportion of single-parent families among all families with children increased to the point where, presently, one-in-five is a single-parent family (20%). This proportion was 18.8% in 1986 and 16.6% in 1981.

Table 8 shows that the prevalence of single-parent families among all families does not fluctuate noticeably from one province to the next. For the three years (1981, 1986, and 1991), Newfoundland was always last and Quebec first among provinces, and the standard deviations indicate very little disparity.

The increase in the number of common-law unions and the rise in the number of single-parent families are certainly not unconnected. Since the census statement regarding the marital status refers to legal status, those who have separated after being involved in a consensual union producing children belong to this category. Currently, the number of common-law unions is more than twice as large as it was 10 years ago, and mostly single persons were involved in their creation. Furthermore, the number of births among unwed mothers also increased considerably. Their proportion went from 14% in 1980 to 38% in 1990 (see Chapter on Fertility). Among other possible contributing factors, more advanced age at marriage should be mentioned. It has slowed down the creation of husband-wife families and postponed maternity to a later age, undoubtedly more in the case of married women than for women involved in a common-law union.

Who Heads a Single-Parent Family?

The profile of the single-parent family has continued to change over the last decade, maintaining a long-standing and on-going trend.[9]

A large increase among both men and women in the proportion of single heads of households (Table 9) is observed. This is coupled with a substantial increase in the proportion of divorced persons, and a considerable decline in the proportion of widowers and widows. For this last category, the decrease results from the long-standing and continuing drop in fertility which has reduced the size of families – and along with it, the probability of a never-married child living with the survivor of a couple – and from the decrease in mortality which has reduced the probability of widowhood at an age where children are still dependent.

The increase in the proportion of single heads of households is connected mainly with the breakdown of common-law unions with children. The increase in number of divorced people results from the rise in the number of divorces not being compensated by remarriage of divorced people.

An analysis of the change in proportions is not conclusive because an increase in one category necessarily results in a decrease in the others. Studying fluctuations between two points in time in each category is much more illuminating.

The increase in single heads of households is striking (Table 10), and so only a few comments are necessary to interpret it. The increase in the number of single heads of families is very important. Although small, the decrease in single-parent families with a widower or a widow as head is undeniable. Also significant is the increase in single-parent families headed by a married person. The spouse may, of course, be institutionalized (in hospital, or prison, for example), but such a rise offers food for thought that some couples separate informally or, at least, take a long time before beginning formal procedures.

Table 9. Marital Status of Single-Parent Family Heads in 1981 and 1991

Marital Status	Women (in %)		Men (in %)	
	1981	1991	1981	1991
Single	11.0	19.5	4.3	8.3
Separated	29.3	24.6	40.4	37.6
Divorced	26.4	32.5	25.7	33.6
Widowed	33.3	23.4	29.5	20.6
Total	100.0	100.0	100.0	100.0

Source: Statistics Canada, *1981 and 1991 Censuses*, Catalogue Nos. 92-905 and 93-312.

[9] Ram, Bali. *New trends in the family*. Current Demographic Analysis Series, Statistics Canada, Catalogue No. 91-535.

Table 10. Changes in the Number and Percentage of Single-Parent Family Heads by Marital Status, 1981, 1986, 1991

Marital Status	1981	1986	1991	Changes in Percent		
				1981-86	1986-91	1981-91
Single	70,050	114,710	167,305	63.8	45.9	138.8
Separated	181,815	208,055	201,400	14.4	−3.2	10.8
Divorced	187,480	255,485	312,065	36.3	22.1	66.5
Widowed	233,175	230,650	218,950	−1.1	−5.1	−6.1
Married	41 490	44 745	54 990	7.8	22.9	32.5
Total	714,005	853,645	954,710	19.6	11.8	33.7

Source: See Table 7.

Living Alone in a Household

As a corollary to the above, the number of one-person households increased from 1,681,130 in 1981 to 1,934,705 in 1986, and to 2,297,060 in 1991,[10] according to the census. This represents an 18.7% rise over 10 years, while the size of the population aged over 15 years has grown by only 8.5%. Over the last 5 years, the number of people living alone increased by 362,355 individuals. Single persons account for 40% of the increase, and divorced persons for one-third (Table 11).

These two statistics confirm that since 1981, the propensity of solo living among Canadians has increased tremendously.

Table 11. Changes in the Number of Persons Living Alone by Marital Status (Aged 15 Years and Over)

	Increase from 1986 to 1991	Increase Compared to 1986 (in %)	Category Increase as Percent of Total Increase
Single	140,520	17.1	38.8
Widowed	91,135	14.2	25.2
Divorced	121,525	47.8	33.5
Separated	2,700	0.2	0.7
Married	6,470	19.0	1.8
Total	362,355	18.7	100.0

Source: 1986 and 1991 Censuses of Canada, special tabulations.

[10] Statistics Canada. *1986, Canadian Census*: Catalogue No. 93-104, Table 7. *1991, Canadian Census*: atalogue No. 93-311.

Table 12. Variations in the Number of Persons by Marital Status and of Single-Person Households by Marital Status

	1981	1986		1991	
		Increase			
		Number	In %	Number	In %
Single	5,255,100	5,425,280	3.2	5,705,860	5.2
Single-Person Households	746,450	822,200	10.1	962,720	17.1
Widowed	1,157,670	1,250,395	8.0	1,344,695	7.5
Widowed Households	555,020	640,890	15.5	732,025	14.2
Divorced	500,135	690,490	38.0	909,070	31.7
Divorced Households	183,300	259,465	41.6	380,990	47.8

Source: *Census of Canada*, Catalogue No. 93-310 and unpublished data.

Single-person households increased by 10.1% between 1981 and 1986, and by 17.1% from 1986 to 1991 (Table 12). For widowers and widows, the increase was 15.5% over the earlier 5-year period, and 14.2% during the second; for divorced persons, the corresponding increases were 41.6% and 47.8%, respectively.

Obviously, the population structure by marital status has changed over those 10 years. The number of single persons aged 15 or older rose from 5,255,100 to 5,425,280, then to 5,705,860, which represents successive increases of 3.2%, then 5.2% – much lower than the increases in single-person households (Table 12). In the case of widowers, there were successive 8% and 7.5% increases. Finally, divorces increased by 38% and then 31.7% – again a much lower increase than in the number of divorced persons living alone.

A final comparison confirms the initial impression that the trend towards solo living is growing. This comparison is necessary since the hypothesis of a change in the age structure between 1981 and 1991 as the principal factor still stands to be disproved, considering that certain ages are more favourable than others to the establishment of oneself. This comparison can be achieved by standardization. Taking the 1986 population by age and marital status as the standard (Table 13), a trend appears clearly for every marital status. The prevalence of solo living has increased by 18% for widowers and widows, by 16% for divorced persons, and by 43% for singles over the period in question.

Calculations not reproduced here show that in 1991, the reluctance of singles to create couples (either by marriage or by common-law union) affects people who are below age 40, while for divorced persons, it seems to affect those from 21 to 40. For the widowers and widows of course, those aged from 60 to 85 are affected.

Table 13. Standardized Rates of Single-Person Households by Marital Status, Both Sexes, Canada, 1981, 1986 and 1991

Marital Status	1981	1986	1991
Single	12.63	15.15	18.08
Widowed	48.16	51.25	56.92
Divorced	36.04	37.58	41.90
Total	8.73	9.71	10.26

Source: Censuses of Canada, Special tabulations. Calculations by the author, standardized using the 1986 population.

Generally, a social phenomenon has many explanations, but some look more plausible than others. For young singles, the possibility of remaining longer in the parental household has already been advanced as a possible reason for their reluctance to form couples. For the oldest (the widowed and divorced), the fiscal provisions and the legislation regarding the division of assets acquired during a union may intimidate some who increasingly have sufficient financial autonomy to maintain separate households, even though they are involved in *de facto* conjugal life with a partner.

Common-law Unions

For the first time, the 1991 Census collected information on whether individuals were involved in a common-law union. In the 1981 and 1986 Censuses, individuals living common law could only be estimated on the basis of the relation between the members of the household and the reference person. The change in collection method in 1991 does not cast any serious doubt on the validity of previous estimates. Checks were conducted on 1991 Census statements with the same methods that had been used in the past (such as relationship to the reference person), and no major discrepancies were observed between the two sets of figures. Though strictly speaking there is discontinuity in the data series, the comparisons are still valid.

On census day, the number of common-law unions was 725,950 (Table 14). The number had grown from 352,000 in 1981 to 486,920 in 1986, a 38.3% increase. The increase over the last five years (239,040 couples) represents an even larger increase, at 49.1%. Such change illustrates that the trend towards choosing this mode of conjugal life is accelerating. Common-law unions accounted for 6.3% of all couples in 1981, and 8.3% by 1986. Such couples currently account for 11.3%. In other words, 1 out of 9 existing couples are not legally bound by marriage. This ratio was 1 to 12 five years ago.

Table 14. Distribution of the Canadian Population Living in Couples, Married and Common-Law, by Sex and Age, Canada, 1986 and 1991

Age	1986				1991			
	In Couples	Married	Common-Law Unions	% of Common-Law Unions Among Couples	In Couples	Married	Common-Law Unions	% of Common-Law Unions Among Couples
	Males							
15-19	7,240	2,590	4,655	64.3	8,300	1,730	6,570	79.2
20-21	34,730	15,820	18,905	54.4	31,865	9,615	22,250	69.8
22-23	100,130	61,315	38,815	38.8	74,985	34,540	40,445	53.9
24-25	182,125	132,575	49,550	27.2	139,980	83,535	56,445	40.3
26-27	251,060	200,790	50,265	20.0	225,310	157,295	68,015	30.2
28-29	295,150	248,380	46,760	15.8	285,775	219,890	65,885	23.1
30-31	314,540	274,095	40,445	12.9	325,615	264,710	60,905	18.7
32-33	318,370	283,790	34,575	10.9	345,315	290,835	54,480	15.8
34-35	315,125	285,125	30,000	9.5	349,360	301,585	47,775	13.7
36-37	317,535	291,265	26,265	8.3	350,510	308,185	42,325	12.1
38-39	327,035	302,985	24,045	7.4	334,590	298,355	36,235	10.8
40-41	276,450	257,405	19,045	6.9	329,955	297,165	32,790	9.9
42-43	263,055	246,690	16 365	6.2	328,075	298,480	29,595	9.0
44-45	236,575	223,070	13,500	5.7	311,015	284,330	26,685	8.6
46-47	218,735	207,955	10,780	4.9	269,870	247,690	22,180	8.2
48-49	206,045	196,810	9,235	4.5	251,790	232,730	19,060	7.6
50+	2,217,435	2,163,715	53,715	2.4	3,050,760	2,956,560	94,200	3.1
Total	5,881,335	5,394,415	486,920	8.3	6,401,455	5 675 505	725 950	11.3
	Females							
15-19	36,690	15,155	21,530	58.7	35,040	8,905	26,135	74.6
20-21	97,555	56,250	41,305	42.3	80,055	33,710	46,345	57.9
22-23	187,780	132,995	54,790	29.2	141,595	81,720	59,875	42.3
24-25	263,895	209,685	54,205	20.5	215,470	149,190	66,280	30.8
26-27	310,360	262,485	47,870	15.4	299,375	228,345	71,030	23.7
28-29	335,100	293,690	41,410	12.4	342,870	278,850	64,020	18.7
30-31	339,840	305,395	34,440	10.1	367,065	309,660	57,405	15.6
32-33	334,805	305,260	29,545	8.8	371,920	321,475	50,445	13.6
34-35	320,010	295,470	24,535	7.7	367,610	323,860	43,750	11.9
36-37	314,255	292,990	21,265	6.8	360,960	322,340	38,620	10.7
38-39	318,155	298,535	19,615	6.2	337,475	304,810	32,665	9.7
40-41	263,860	248,695	15,185	5.8	324,165	295,745	28,420	8.8
42-43	249,510	236,375	13,130	5.3	316,760	291,520	25,240	8.0
44-45	224,325	213,735	10,590	4.7	295,475	273,495	21,980	7.4
46-47	206,635	197,815	8,820	4.3	252,890	235,480	17,410	6.9
48-49	194,285	186,965	7,325	3.8	233,675	219,110	14,565	6.2
50+	1,884,285	1,842,920	41,360	2.2	2,059,035	1,997,275	61,760	3.0
Total	5,881,335	5,394,415	486,920	8.3	6,401,455	5,675,505	725,950	11

Source: Statistics Canada, unpublished data from the censuses (Family Universe).

The three reference points provided by the 1981, 1986 and 1991 censuses indicate that the common-law phenomenon has not evolved similarly in the different regions and territories of the country. Standardizing rates by province at the three dates to eliminate distortions resulting from the changing age structure brings out the intrinsic differences (Table 15).

The first striking observation is that the acceleration is greater than the raw figures would suggest. The prevalence rate for Canada rose from 6.4% to 13.5%. The propensity to live common law has thus increased by 111% over 10 years, and most of this increase occurred between 1986 and 1991.

Secondly, the 1981 to 1991 increase is noticeably higher in the Eastern part of the country than in the West. The East has seemingly caught up to some extent.

The third observation is the exceptional prevalence rate in Quebec, at 21.7%. British Columbia comes second with a rate of only 13.5%. Yukon and the Northwest Territories are not included in the comparisons.

Finally, the most intriguing observation is the low rate in Ontario and its very slow progression during the past five years, contrary to the rest of Canada.

Since common-law unions are *de facto* unions, the number of men and women is equal in principle, as in the case of husband-wife families.[11] Distributions within the same sex vary, however, at different ages. For both sexes, the prevalence rate (namely the percentage of individuals involved in common-law unions among the corresponding group of people living in couples) decreases and the number of married persons increases with age since only recent generations were offered the option of choosing between this conjugal life mode and marriage (Table 14). The proportions living common-law in each age group have increased noticeably between 1986 and 1991. This means, first, that in the young generations where singles predominate, this life mode is chosen. Secondly, among older generations where divorced persons – and to a lesser degree, widowed and separated persons – are numerous, such persons are also increasingly choosing common-law unions over remarriage or solo living.[12] For example, in 1986, among men aged 40 to 50 living in couples, 3.1% were living common law; in 1991, the percentage was 8.7%, notwithstanding that in 1986, 23% of men below age 25 living in couples were living common law. In 1991, the proportion reached 49.3%.

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[11] In the case of married persons, this is not so. The number for each sex differs since the spouse may have been absent. However, as the common-law union was proposed as a category of marital status, some respondents may have stated that they were living common law if their companion was absent, which may have had an impact on the edit and imputation process during certification.

[12] See previous section, "Living Alone in a Household".

Table 15. Prevalence Rates[1] of Common-Law Unions, Canada, Provinces and Territories, 1981-1991 (Per 100 Persons Living in Couples)

Province	Rate			Index			Change in %	
	1981	1986	1991	1981[2]	1986	1991	1981-1986	1981-1991
Newfoundland	2.19	3.50	9.34	34	55	146	62	329
Prince Edward Island	3.18	5.20	8.51	50	81	133	62	166
Nova Scotia	4.92	7.40	10.67	77	116	167	51	117
New Brunswick	4.02	6.48	11.04	63	101	173	60	175
Quebec	8.13	13.65	21.66	127	213	338	68	166
Ontario	5.63	7.20	7.42	88	113	116	28	32
Manitoba	5.26	7.03	10.32	82	110	161	34	96
Saskatchewan	4.25	6.35	9.57	66	99	150	57	127
Alberta	6.61	8.15	11.30	103	127	177	23	72
British Columbia	8.12	9.90	13.49	127	155	211	22	66
Yukon	15.41	18.30	23.13	241	286	361	19	50
Northwest Territories	9.63	14.22	14.76	150	222	231	48	54
Canada	6.40	9.18	13.50	100	143	211	43	111

[1] Standardized using 1981 Canada husband-wife unions by age group.
[2] The 1981 rate was used as the base for the 1981, 1986 and 1991 indices.

Source: Statistics Canada, Catalogue No. 93-310.

Who is Involved in Common-law Unions?

Common-law union is a conjugal life mode that does not affect the legal marital status of partners. Therefore, among the thousands of couples living common law, all the possible marital statuses combinations for the men and women involved can be specified. The 1991 Census provides means to outline the situation (Table 16). Regardless of age and sex, the prevalence rate of partners with a given marital status depends on the number of persons in that group. Accordingly single persons, who are the most numerous, predominate, followed by the divorced, separated and lastly the widowed population. As expected, homogamy by marital status reveals the same ordinal, but at a lower level. Accordingly, common-law couples involving two singles account for 51.1% of all unions and those involving two divorced persons, 12.7%. Couples involving separated and widowed persons account for 1.6% and 0.9% of common-law unions, respectively.

Often, the national average obscures quite significant differences between provinces. A table not reproduced in this report shows that Quebec and Ontario, and to a lesser extent, British Columbia – which is somewhat similar to Ontario – are the provinces that differ the most. Couples involving singles account for 59% of common-law unions in Quebec, but for only 41% in Ontario. By contrast, couples involving two divorced persons represent more than 15% of common-law unions in Ontario, as opposed to slightly more than 10% in Quebec.

Since most common-law unions of single persons involve young adults, the prevalence of common-law unions in Quebec indicates that, in this province more than elsewhere, conjugal life tends to start with a common-law union... and continues the same way! In Ontario and British Columbia, a common-law union is chosen more often by partners who have both experienced marriage breakdown.

Table 16. Number of Persons Living in Common-Law Unions by Legal Marital Status, Canada, 1991

Males	Females				
	Total	Single	Separated	Widowed	Divorced
Total	725,950	466,215	45,175	32,135	182,430
Single	457,180	370,765	16,500	7,265	62,645
Separated	57,260	20,100	11,965	4,175	21,015
Widowed	17,480	2,970	1,480	6,745	6,285
Divorced	194,030	72,380	15,225	13,950	92,475

Source: Statistics Canada, 1991 Census, unpublished data.

Table 17. Total First-Marriage Rate, Canada, Provinces and Territories, 1987 to 1990 (Per 1,000)

Province	1987		1988		1989		1990	
	Males[1]	Females[2]	Males[1]	Females[2]	Males[1]	Females[2]	Males[1]	Females[2]
Newfoundland	623	596	657	634	689	678	668	664
Prince Edward Island	691	701	741	747	795	796	755	753
Nova Scotia	651	672	671	710	674	707	626	662
New Brunswick	632	646	687	711	678	705	651	682
Quebec	449	457	460	488	461	479	438	481
Ontario	688	718	705	761	727	770	725	769
Manitoba	659	686	655	700	657	697	664	706
Saskatchewan	624	657	632	677	653	695	633	673
Alberta	603	640	640	696	673	702	669	710
British Columbia	662	692	705	756	712	748	701	745
Yukon	493	513	574	695	535	599	547	629
Northwest Territories	343	377	349	343	349	361	363	372
CANADA	606	629	627	657	642	675	631	674
CANADA WITHOUT QUEBEC	661	689	685	713	704	741	697	738

[1] 17-49 years.
[2] 15-49 years.

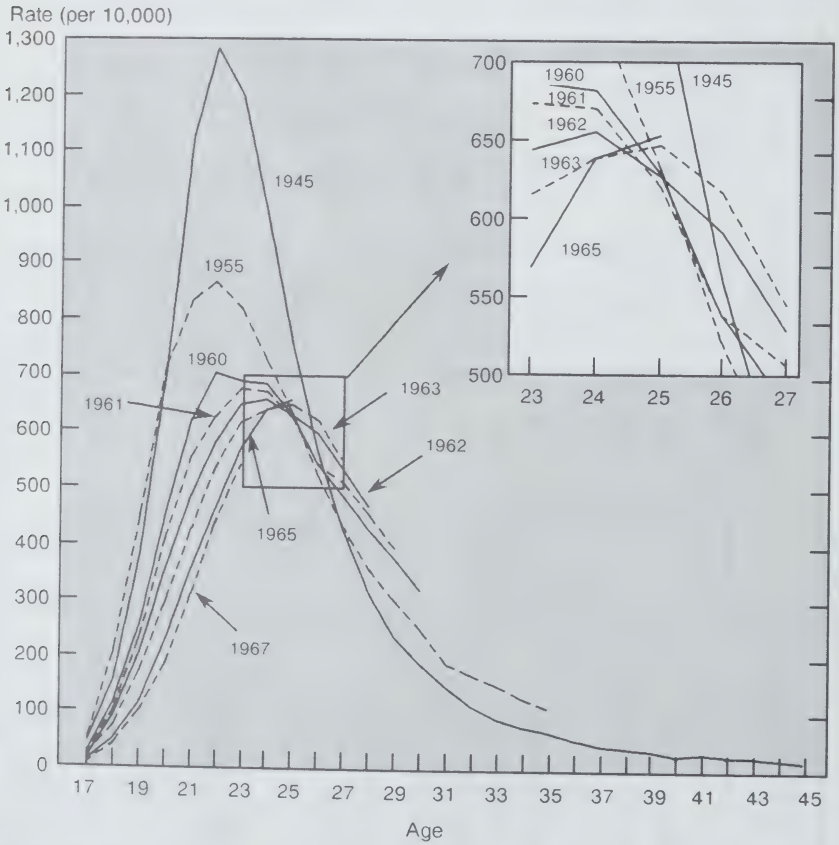
Source: Canadian Centre for Health Information, *Marriages* (Annual).

NUPTIALITY

First marriage rates for both sexes clearly continue to decline year after year among youth in their early twenties, but increase in the late twenties and beyond. This general observation calls for two comments. First, the shifting age has become less clear in the last few years (see Tables A2 and A3 in the Appendix). For men the fluctuation of rates is uncertain around ages 25 and 26, and for women, around 23 and 24. A second comment is that the slight increase in the low rates among men in their thirties is diminishing. The persistence of these

Figure 2A

Age-specific First Marriage Rates for Recent Cohorts, Males, Canada

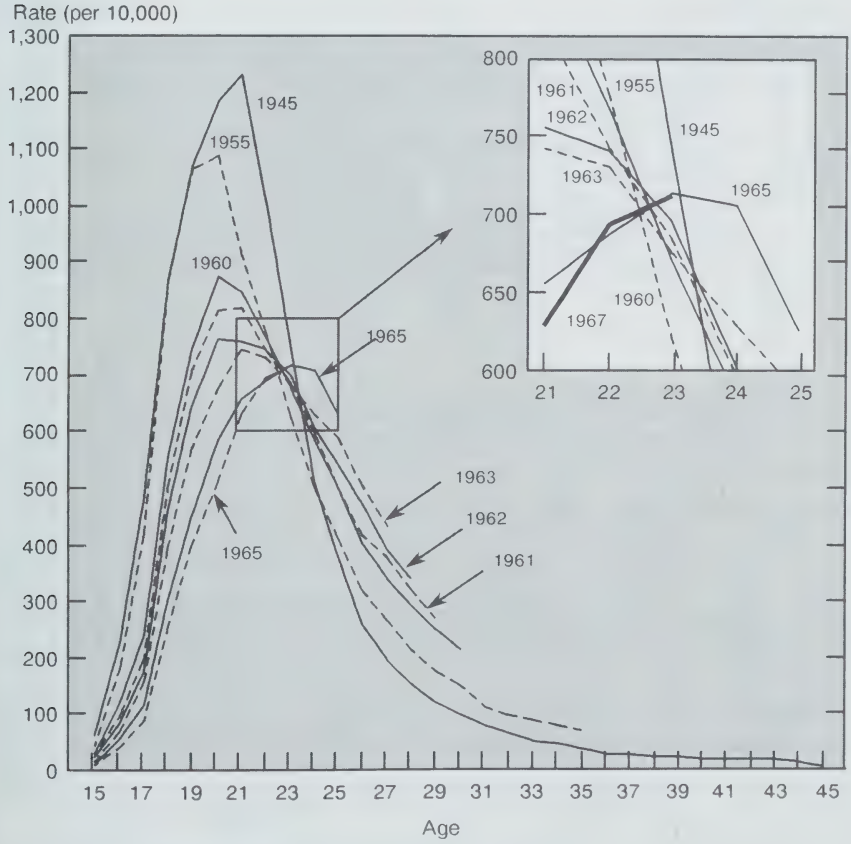


Source: Table A3.

trends means that undoubtedly there will be a downward effect on total marriage rates of cohorts (Figures 2A and 2B). Not only is Canadian nuptiality facing a change in tempo, but also a drop in intensity. For example, Table A2 indicates that the 1945 male cohort, at age 45, had produced 910 married men out of 1,000 living boys at age 17, and that 718 had already tied the knot before age 27. Only 385 among the 1964 cohort at the same ages had married. To fill the gap, 525 would have to marry during the next 19 years. Such a catch-up seems most unlikely (see in the Divorces section, specifically the relationship between constitution and dissolution of couples).

Figure 2B

Age-specific First Marriage Rates for Recent Cohorts, Females, Canada



Source: Table A3.

Table 18. Marriages, First Marriages, Remarriages, Canada, 1967-1990

Year	Number of Marriages	Number of First Marriages		Number and Proportion of Marriages in which at least one Spouse had been Previously Married		Number and Proportion of Remarriages in which both Spouses had been Previously Married	
		Males	Females	Number	%	Number	%
1967	165,879	151,883	151,488	20,417	12.3	7,970	39.0
1968	171,766	157,309	156,783	21,133	12.3	8,307	39.3
1969	182,183	162,853	162,690	27,494	15.1	11,329	41.2
1970	188,428	167,267	167,421	29,975	15.9	12,193	40.7
1971	191,324	168,944	169,072	31,698	16.6	12,934	40.8
1972	200,470	176,537	177,155	33,582	16.8	13,666	40.7
1973	199,064	173,355	174,135	36,047	18.1	14,591	40.5
1974	198,824	170,678	172,107	39,063	19.6	15,800	40.4
1975	197,585	167,022	168,817	42,300	21.4	17,031	40.3
1976	186,844	155,679	157,412	43,098	23.1	17,499	40.6
1977	187,344	154,906	156,854	44,750	23.9	18,178	40.6
1978	185,523	151,884	154,016	46,254	24.9	18,892	40.8
1979	187,811	152,731	154,982	48,309	25.7	19,600	40.6
1980	191,069	154,138	156,918	50,600	26.5	20,422	40.4
1981	190,082	151,978	154,506	52,340	27.5	21,340	40.8
1982	188,360	149,419	152,825	52,979	28.1	21,438	40.5
1983	184,675	144,960	147,968	53,342	28.9	22,080	41.4
1984	185,597	144,674	147,907	55,436	29.9	23,177	41.8
1985	184,096	144,009	146,718	54,632	29.7	22,833	41.8
1986	175,518	137,665	138,523	52,678	30.0	22,170	42.1
1987	182,151	138,454	139,324	60,106	33.0	26,529	44.1
1988	187,728	142,956	143,943	61,665	32.8	26,892	43.6
1989	190,640	145,733	146,242	62,276	32.7	27,029	43.4
1990	187,738	143,637	145,350	60,393	32.2	26,094	43.2

Source: Vital Statistics, *Marriages and Divorces*, Catalogue No. 84-205 (Annual) from 1967 to 1986 and Canadian Centre for Health Information, *Marriages* (Annual) from 1987 to 1990.

Halting trends in rates by age translate into erratic annual fluctuations in the cross-sectional total rate, making its interpretation impossible (see the 1991 Report for a discussion of the total rate). This comment is applicable to every province (Table 17) with the exception of the two most populous - Quebec and Ontario which also have the most dissimilar measures. Ontario appears to be a province with very traditional customs, with total measures greatly above the national average. Quebec reaches levels among men which are the second lowest, after the aboriginal people in the Northwest Territories - people who have always been less inclined towards legal unions.

In 1990, the number of marriages was not particularly high (Table 18). Poor economic conditions may very conceivably have had a downward effect on intentions to marry. In fact, remarriages have declined more than first marriages, which would seem somewhat logical insofar as those who intend to remarry may be less impatient than those who are entering a union for the first time.

DIVORCES

In 1990, there were fewer divorces in Canada than in the preceding years. The number of decrees issued declined from 80,716 in 1989 to 78,152 - the same number as in 1986. The total divorce rate presented in Table 19 is obtained by cumulation of duration-specific divorce rates until the 25th duration inclusively. The total divorce rate equals 3,827 per 10,000, which could be interpreted as a slight decrease. However, examination of duration-specific rates does not indicate that significant changes had occurred. While all rates rose from 1988 to 1989, nearly all fell from 1989 to 1990.

Family and Divorce

In most cases, a couple is the foundation of a family. The fluctuation in the number of families therefore depends, among other things, on the rate at which couples are created and dissolved, either by divorce or the death of a spouse. Such a count does not permit an accurate estimate of families because some survive each of the events (as single-parent families, for example) and some are created and dissolved through common-law unions, without leaving any trail.[13]

Considering the low fluctuation in the annual number of marriages (including remarriages), peaks in divorce rates have significant negative effects on the growth of the number of families during the year. From 1980 to 1985, on average for every 100 unions created, 33 were dissolved by divorce. This proportion reached 50% in 1987 and then decreased to about 40% in recent years (Table 20).

[13] The census only presents net results for each five-year period.

Table 19. Duration-specific Divorce Rate (per 10,000), Canada, Marriage Cohorts 1943-44 to 1989-90

Year	Number of Marriages per Calendar Year	Marriage Cohort	Cohort Marriages	Duration of Marriage																									Year of Observation	T.D.R.[1]
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
1944	104,656	1943-44	109,241																									44	1969	1,367
1945	111,376	1944-45	108,016																								51	50	1970	1,861
1946	137,398	1945-46	124,387																							52	56	48	1971	1,881
1947	130,400	1946-47	133,899																						48	55	49	46	1972	2,004
1948	126,118	1947-48	128,259																					47	56	50	50	54	1973	2,231
1949	124,087	1948-49	125,102																				50	58	56	52	60	58	1974	2,670
1950	125,083	1949-50	124,585																			51	60	55	58	59	68	64	1975	2,932
1951	128,408	1950-51	126,745																		51	64	61	59	60	73	69	71	1976	3,072
1952	128,474	1951-52	128,441																	53	65	63	62	63	74	74	76	69	1977	3,063
1953	131,034	1952-53	129,754																54	69	70	64	67	75	80	76	69	55	1978	3,108
1954	128,629	1953-54	129,381															50	74	64	62	71	86	82	78	75	70	62	1979	3,180
1955	128,029	1954-55	128,329														57	73	65	68	69	85	85	83	75	70	68	65	1980	3,277
1956	132,713	1955-56	130,371													59	83	71	73	77	87	90	90	89	78	74	69	71	1981	3,529
1957	133,186	1956-57	132,949												67	82	76	75	78	92	105	96	87	85	84	75	74	66	1982	3,655
1958	131,525	1957-58	132,355											61	79	81	81	83	91	101	97	92	84	82	77	78	73	66	1983	3,522
1959	132,474	1958-59	131,999										68	91	82	80	86	96	105	103	92	89	80	78	83	75	67	67	1984	3,306
1960	130,338	1959-60	131,406									70	93	95	91	97	111	111	110	100	95	90	84	91	87	76	67	64	1985	3,121
1961	128,475	1960-61	129,406								73	97	95	95	97	119	119	116	108	100	95	94	95	94	81	76	64	78	1986	3,799
1962	129,381	1961-62	128,928							71	105	99	106	103	121	133	123	115	108	97	96	98	105	88	79	71	81	84	1987	4,314
1963	131,111	1962-63	130,246						71	114	113	112	114	131	133	134	124	118	104	99	107	105	91	85	78	85	93	76	1988	3,748
1964	138,135	1963-64	134,623					68	106	109	113	124	142	136	140	128	126	114	110	113	109	100	93	82	99	101	87	76	1989	3,982
1965	145,519	1964-65	141,827				61	98	112	121	134	150	153	153	139	134	124	117	118	113	104	96	91	101	110	85	83	74	1990	3,827
1966	155,596	1965-66	150,557			42	93	112	*128*	*143*	156	162	163	148	137	130	120	121	115	112	101	92	104	112	95	90	83			

Year	Number of Marriages per Calendar Year	Marriage Cohort	Cohort Marriages	Duration of Marriage																									Year of Observation	T.D.R.[1]
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
1967	165,879	1966-67	160,737			31	68	102	126	139	***166***	177	171	155	145	136	132	130	128	117	105	94	109	118	103	97	85				
1968	171,766	1967-68	168,823		17	49	75	115	142	162	***183***	173	165	156	151	136	138	138	117	109	96	112	120	102	108	91					
1969	182,183	1968-69	176,974	3	22	53	83	122	158	182	184	171	165	160	152	147	144	132	111	103	118	123	105	105	97						
1970	188,428	1969-70	185,305	3	25	55	92	151	177	***192***	192	176	174	163	162	157	139	128	112	118	130	106	113	98							
1971	191,324	1970-71	189,876	4	28	61	106	161	186	189	191	184	180	172	166	150	130	116	125	133	109	113	101								
1972	200,490	1971-72	195,907	4	33	74	117	174	***193***	196	197	191	187	185	168	144	125	141	141	119	121	108									
1973	199,064	1972-73	199,777	5	36	83	129	181	***203***	212	211	205	204	180	155	135	149	155	125	126	112										
1974	198,824	1973-74	198,944	5	44	94	136	184	***213***	***226***	228	218	189	168	146	154	163	133	129	109											
1975	197,585	1974-75	198,205	6	52	104	147	199	224	243	232	214	185	162	167	177	134	139	130												
1976	193,343	1975-76	195,464	8	59	111	161	218	***249***	246	226	193	167	190	184	148	152	129													
1977	187,344	1976-77	190,343	8	63	116	166	232	***250***	238	209	180	195	201	163	158	143														
1978	185,523	1977-78	186,434	7	65	126	175	237	***251***	220	198	224	224	175	174	155															
1979	187,811	1978-79	186,667	8	60	135	187	228	***225***	210	246	245	190	184	162																
1980	191,069	1979-80	189,440	8	68	137	178	207	***212***	261	269	206	206	182																	
1981	190,575	1980-81	190,822	9	74	133	154	190	***262***	285	225	217	188																		
1982	188,360	1981-82	189,468	10	69	120	147	252	***294***	237	230	212																			
1983	184,675	1982-83	186,518	9	67	110	202	295	***246***	246	217																				
1984	185,597	1983-84	185,136	9	66	145	246	239	252	238																					
1985	184,096	1984-85	184,846	10	70	197	227	260	248																						
1986	175,518	1985-86	179,807	10	96	200	***264***	264																							
1987	182,151	1986-87	178,835	18	99	216	250																								
1988	187,728	1987-88	184,940	18	105	216																									
1989	190,640	1988-89	189,184	19	114																										
1990	187,737	1989-90	189,188	19																											

[1]Total divorce rate.

Source: Vital Statistics, *Marriages and Divorces,* Catalogue No. 84-205 (Annual) from 1943 to 1986 and Canadian Centre for Health Information, *Marriages* (Annual), *Divorces* (Annual), from 1987 to 1990. Calculations made at the Demography Division, Statistics Canada.

Table 20. Relation Between the Formation and Legal Dissolution of Couples by Year, Canada, 1960 and 1981-1990

Year	Marriages	Deaths of Married Persons	Proportion of Marriages Ended by the Death of a Spouse	Divorces	Proportion of Marriages Ending in Divorce	Proportion of Marriages Dissolved Annually
1960	130,338	64,553	49.5	6,980	5.4	54.9
1981	190,082	83,603	44.0	67,671	35.6	79.6
1982	188,360	85,099	45.2	70,436	37.4	82.6
1983	184,675	84,748	45.9	68,567	37.1	83.0
1984	185,597	84,925	45.8	65,172	35.1	80.9
1985	184,086	87,252	47.4	61,980	33.7	81.1
1986	175,518	88,763	50.6	78,160	45.1	95.7
1987	182,151	88,848	48.8	90,985	50.0	90.8
1988	187,778	90,901	48.4	79,872	42.6	91.0
1989	190,640	89,746	47.1	80,716	42.3	89.4
1990	187,738	88,997	47.4	78,152	41.6	89.0

Source: Statistics Canada, Vital Statistics Publications, Canadian Centre for Health Information.

Combining the number of dissolutions for reasons of death and divorce shows that during the last few years, for 10 unions created nine were dissolved. Comparisons with a reference year like 1960 show that the current growth of families in Canadian society can only be slower than it was 30 years ago. At that time, each year four to five couples (and therefore, families) were added to every 10 existing couples.

Interprovincial Comparisons

Demographers have always preferred to avoid making regional comparisons on divorce rates. As long as people who divorced were subject to social disapproval, they tended to file suit in out-of-town courts and even emigrate. But the days when Reno, Nevada, was the capital of divorce are long gone. Now, some basic comparisons – between provinces, for example – can be made. Unfortunately, all existing measures are inadequate because, by their very nature, North American people change their place of residence very often. The mean number of divorces per marriage in the cohort is an acceptable measure at the national level, but not at the provincial level. The only remaining option is to choose the least imperfect measure. It would have been suitable, for example, to choose couples below age 60 in order to specify the number of individuals exposed to the risk of divorcing. This is not, however, feasible because most of the time the partners in a couple are not the same age. Therefore, all married persons under age 60 have been retained as the denominator, while the numerator is composed of the sum of divorces that dissolved unions of less than 35 years for a given year. This approach does not however, eliminate completely the bias of migration, and thus limits the scope of interpretation.

Table 21. Divorce Rate Per 100,000 Married Persons Aged 15 to 60, Canada and Provinces, 1990

Provinces	Divorces (1)	Population Aged 15 to 60 (2)	Rate (3) = (1) ÷ (2)
Newfoundland	973	224,665	433
Prince Edward Island	268	47,947	559
Nova Scotia	2,347	345,680	679
New Brunswick	1,643	280,965	584
Quebec	19,405	2,772,325	700
Ontario	28,183	4,055,850	695
Manitoba	2,677	414,475	646
Saskatchewan	2,277	367,735	549
Alberta	9,314	1,042,295	894
British Columbia	9,649	1,295,770	745
Average of Provincial Rates			642
Standard Deviation			120
Coefficient of Variation (%)			18.5

Source: Statistics Canada. For Divorces: Data Available from the Canadian Centre for Health Information; Population data from Demography Division, Estimates Section.

Table 21 shows the highest ratio to be in Alberta. Quebec, Ontario and British Columbia appear to have equal ratios, while the remaining provinces are lower. The link between the rate's value and the level of urbanization in the provinces cannot be missed by the reader.

FERTILITY

In Quebec and in Other Provinces

While fertility rates were shrinking during the 1960s, several demographers tried to understand the unexpected baby boom phenomenon which had disrupted the demographic transition. Still today, in several countries, the compelling though contradictory theories by Garry Becker, Butz and Ward, or Easterlin are being put to the test. These theories try to explain the upward and downward variations of fertility and, above all, to predict them. Observations from the past few decades indicate that industrialized countries, one after the other, have entered the post-transitional stage, where fertility reaches the low levels that effective birth control allows. Fewer and fewer people ignore the fact that the variations in cross-sectional indices, especially when they are weak and temporary, translate more into particular social or economic situations than to the reproductive behaviour of cohorts as such. This does not mean that these variations should be ignored however, since they may have an effect – even a moderate one – on the size of cohorts. From year to year, these cohorts are rising in the age pyramid.

Table 22. Total Fertility Rate, Canada, Provinces and Territories, 1987-1990

Province	1987	1988	1989	1990	Growth 1987-90 in %
Newfoundland	1.5680	1.5074	1.5690	1.5470	−1.34
Prince Edward Island	1.8626	1.8748	1.8301	1.9234	3.26
Nova Scotia	1.5915	1.6077	1.6640	1.7191	8.02
New Brunswick	1.5608	1.5784	1.6110	1.6473	5.54
Quebec	1.4235	1.4830	1.6050	1.7193	20.78
Ontario	1.6839	1.7016	1.7699	1.8240	8.32
Manitoba	1.8769	1.8909	1.9634	1.9896	6.00
Saskatchewan	2.0383	2.0291	2.1107	2.1091	3.47
Alberta	1.8808	1.9191	1.9964	1.9832	5.44
British Columbia	1.7140	1.7571	1.7654	1.8074	5.45
Yukon	2.0050	2.1619	1.9808	2.2894	14.19
Northwest Territories	3.0498	3.1628	2.9750	3.1457	3.14
Canada	1.6571	1.6878	1.7624	1.8194	9.79

Source: Statistics Canada, *Births*, Catalogue No. 82-003s 14 (Annual), Vital Statistics, Calculations made by Demography Division, Statistics Canada.

For the whole of Canada and for the fourth consecutive year, the total fertility rate has again increased somewhat. At 1.83, it reached a level that was last seen 14 years ago (1.83 in 1976) (Table 22). During the last 4 years of "recovery', six provinces had a constant progression and the others had only a slight decline in 1 year. Also, the latter observation refers to the two smallest provinces and the two territories. Therefore, this resurgence affected the whole Canadian population. The province of Quebec, however, stands out above all. While it comes almost last in the ordinal classification, it regularly had the highest growth rate. In three years, its total fertility rate grew by 20.6%, followed far behind by Ontario with an increase of 8.8%.

Since the total fertility rate, as a cross-sectional index, represents the number of children that should be borne by 1,000 women, the significance of changes that have occurred in Quebec compared with the rest of Canada since 1987 can be evaluated concretely.

Admittedly for both populations, the measure has increased. In 1987, Quebec came 315 children short of the number of children borne by 1,000 women in the rest of the country (1,423 in Quebec and 1,738 in all other provinces together) (Table 23). In 1990, the gap shrank considerably, with Quebec only 137 children short of the 1,855 children borne by women in the rest of Canada.

Table 23. Births per 1,000 Women for Fictitious Cohorts, Quebec and the Rest of Canada, 1987-1990

Birth Order	Quebec		Rest of Canada		Difference Between Quebec and the Rest of Canada	
	1987	1990	1987	1990	1987	1990
1	668	837	724	821	−56	16
2	500	596	614	634	−114	−38
3	179	213	270	272	−91	−60
4	52	53	86	85	−34	−33
5+	24	21	44	43	−20	−22
T.F.R.	1,423	1,720	1,738	1,855	−315	−137

Source: Data from Table 24.

The change in the order-specific measures indicates that second-order children, with a jump of 76, account for most of the recovery. Quebec's deficit in this category, dropped from 114 to 38. In second place, first-order children made nearly an equivalent contribution. The latter in Quebec are 16 above their counterparts in the rest of Canada, which contrasts with Quebec's former deficit of 56 – a swing of 72 children. Third-order children made very little progress. Accounting for a deficit of 91 in 1987, they are still behind by 60 in 1990. For higher-order children, the situation is unchanged.

Figure 3 shows a comparison of the monthly fluctuation of fertility between the two largest provinces. The resurgence of fertility in Quebec since 1987 is readily apparent. Also, the progression during the 1990s stands out. While in Ontario a decline likely augurs lower rates in 1991, no such indication appears in Quebec's curves. In 1991, Quebec will most likely have an increased fertility rate even if the number of births was to remain unchanged.

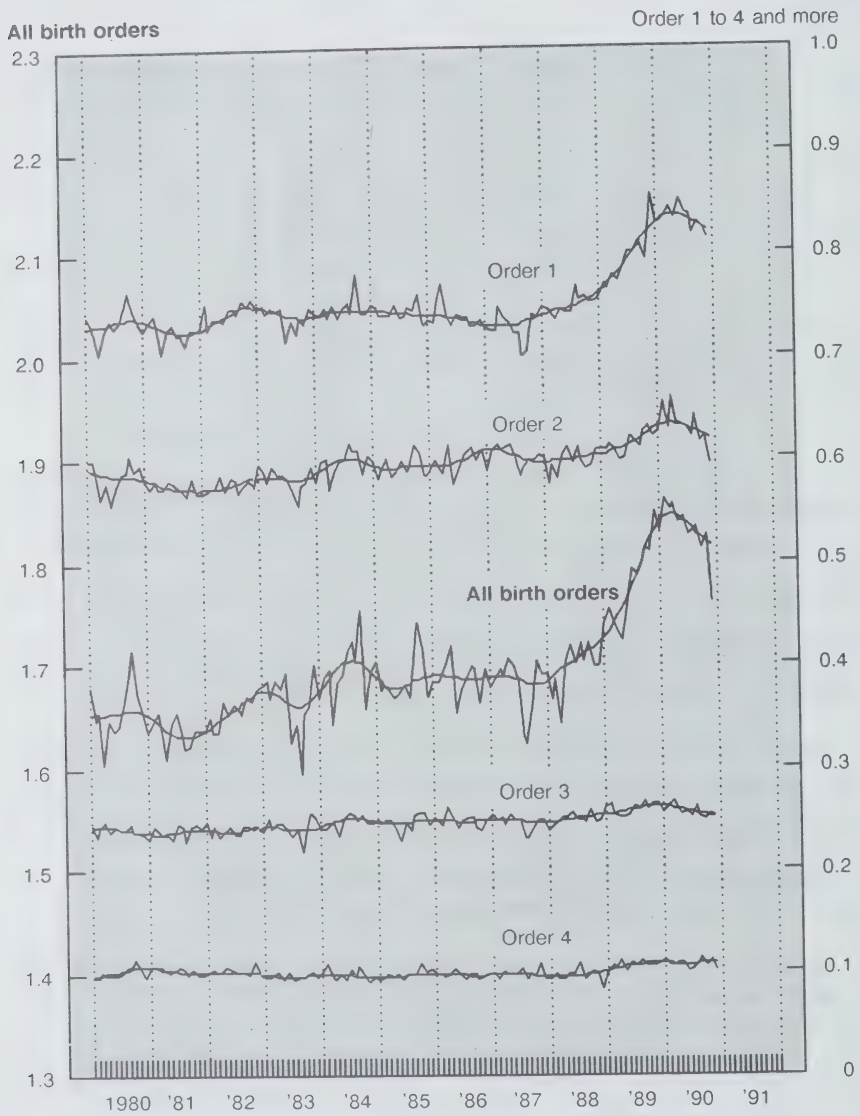
Fertility by age also provides interesting information about reproductive behaviours in Quebec and in the rest of Canada (Table 24).

For those aged 15 to 19, the evolutions went in opposite directions. While declining since 1981 in the rest of Canada, fertility in this age group has been increasing noticeably in Quebec since 1986.

For those aged 20 to 24, the fertility rates of the two populations are almost equal in 1990, after several years when both were declining and Quebec's level was much lower. In 1990, there is an increase in both populations, but a much higher one in Quebec.

Figure 3A

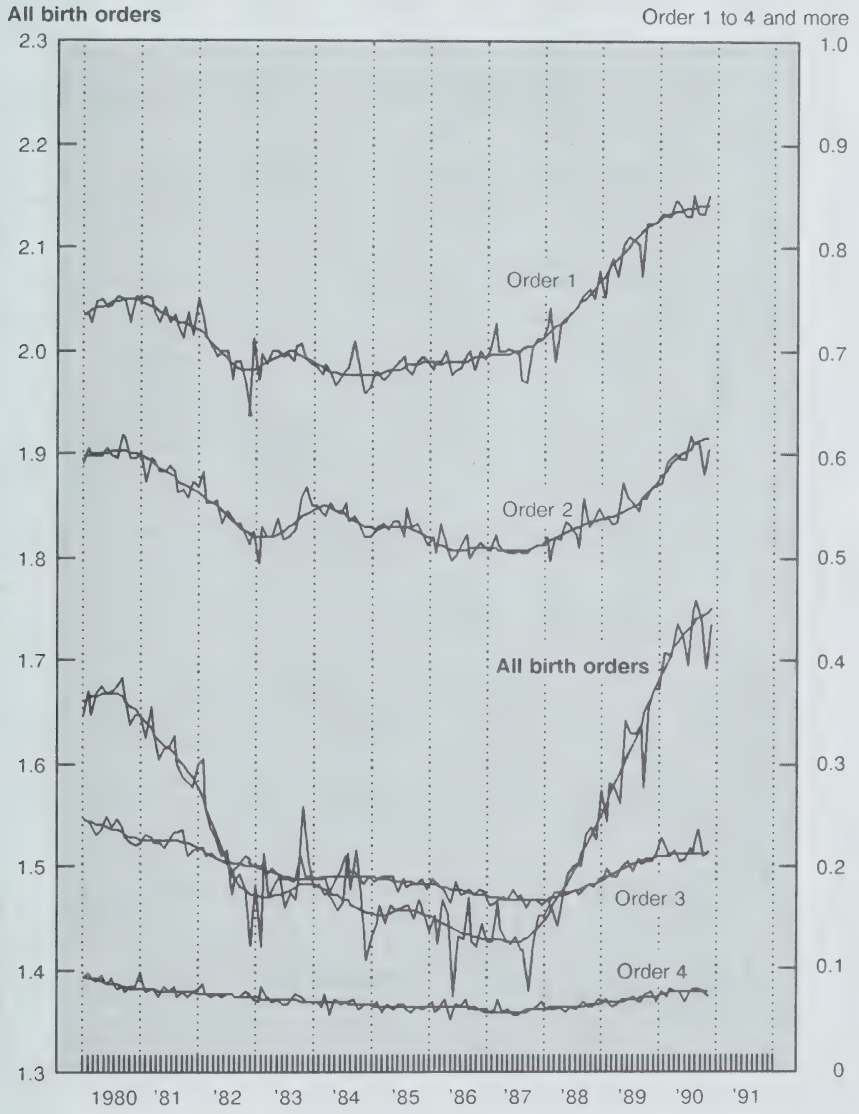
Total Fertility Rate by Birth Order, by Month, Ontario, 1980-1990



Source: Statistics Canada: Unpublished data from Vital Statistics. Population estimates (Demography Division). Calculations made by Pierre Cholette, from the Time Series Research and Analysis Division.

Figure 3B

Total Fertility Rate by Birth Order, by Month, Quebec, 1980-1990



Source: Statistics Canada: Unpublished data from Vital Statistics. Population estimates (Demography Division). Calculations made by Pierre Cholette, from the Time Series Research and Analysis Division.

Table 24. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of Mother, Quebec and the Rest of Canada[1], 1981-1990

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
1	1981	12.93	25.34	57.67	56.52	55.81	49.86	16.72	17.59	3.53	3.76	0.55	0.49	0.7361	0.7677
	1982	12.92	25.44	54.57	56.68	51.27	50.42	15.99	18.45	3.63	4.14	0.48	0.53	0.6943	0.7783
	1983	12.45	23.71	53.67	55.27	52.02	51.37	16.47	19.97	3.82	4.75	0.47	0.53	0.6945	0.7780
	1984	12.34	22.99	50.78	52.69	51.93	51.68	16.46	21.24	4.02	4.91	0.55	0.56	0.6804	0.7703
	1985	12.43	22.05	48.99	50.09	52.16	51.58	17.50	21.68	4.03	4.86	0.48	0.58	0.6780	0.7542
	1986	13.00	22.03	48.75	48.78	51.93	50.35	18.19	21.16	4.51	5.07	0.51	0.67	0.6844	0.7404
	1987	13.35	21.27	45.80	46.36	51.17	49.71	18.46	21.43	4.24	5.34	0.61	0.74	0.6682	0.7242
	1988	14.11	21.74	49.47	46.50	56.55	52.60	20.14	23.02	4.86	6.15	0.72	0.79	0.7292	0.7540
	1989	15.28	23.21	52.38	48.25	60.90	54.22	22.47	24.67	5.40	6.51	0.66	0.88	0.7855	0.7886
	1990	16.30	24.21	56.00	48.61	64.13	57.06	24.46	26.37	5.83	7.05	0.67	0.90	0.8369	0.8210
2	1981	1.63	4.57	25.23	33.45	54.53	49.14	28.38	26.14	6.29	6.02	0.59	0.64	0.5833	0.5998
	1982	1.60	4.57	23.53	32.74	51.05	48.49	26.16	26.91	5.94	6.49	0.62	0.66	0.5445	0.5993
	1983	1.54	4.37	22.82	32.00	49.54	48.68	25.63	28.38	5.44	6.93	0.63	0.78	0.5280	0.6057
	1984	1.59	4.26	22.50	31.48	50.74	49.75	27.34	29.87	5.84	7.64	0.63	0.73	0.5432	0.6187
	1985	1.63	4.17	21.42	30.29	49.24	50.06	27.08	31.13	5.90	7.97	0.60	0.82	0.5293	0.6221
	1986	1.66	4.03	19.50	29.14	48.06	49.95	26.15	31.85	5.82	8.29	0.69	0.84	0.5094	0.6205
	1987	2.05	4.24	20.25	27.61	45.24	49.08	25.82	32.23	5.90	8.72	0.69	0.97	0.4998	0.6143
	1988	1.81	3.91	20.05	26.90	46.11	48.11	28.42	32.81	6.97	9.48	0.86	1.15	0.5211	0.6118
	1989	1.99	4.23	21.28	27.00	47.82	48.57	30.02	34.14	7.34	9.98	0.76	1.14	0.5461	0.6253
	1990	2.30	4.36	22.98	26.79	51.95	48.46	32.72	35.53	8.75	10.43	0.93	1.21	0.5956	0.6339
3	1981	0.16	0.45	4.64	8.91	17.86	20.55	17.03	16.39	4.71	4.95	0.57	0.71	0.2249	0.2598
	1982	0.11	0.50	4.49	8.89	16.31	20.71	14.93	16.56	4.73	5.54	0.59	0.62	0.2058	0.2641
	1983	0.14	0.44	4.04	8.57	15.23	20.50	14.36	16.89	4.18	5.66	0.55	0.62	0.1925	0.2634
	1984	0.10	0.45	3.84	8.34	14.71	20.50	14.22	17.91	4.42	5.80	0.59	0.67	0.1894	0.2683
	1985	0.15	0.46	3.79	8.24	14.29	20.38	13.71	18.11	4.36	6.03	0.53	0.72	0.1841	0.2697
	1986	0.18	0.50	3.50	7.98	13.66	20.21	12.75	18.34	4.39	6.15	0.59	0.76	0.1754	0.2698
	1987	0.22	0.48	4.26	7.94	13.98	19.82	12.79	18.57	4.05	6.47	0.58	0.80	0.1794	0.2704
	1988	0.18	0.49	3.65	7.59	12.97	19.44	12.76	18.68	4.20	6.92	0.54	0.88	0.1715	0.2700
	1989	0.23	0.50	4.41	7.72	14.62	19.17	14.52	19.44	4.80	7.38	0.68	0.99	0.1963	0.2760
	1990	0.18	0.52	4.74	7.65	15.95	18.64	15.73	19.27	5.38	7.45	0.59	0.93	0.2128	0.2723

Table 24. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of Mother, Quebec and the Rest of Canada[1], 1981-1990 – Concluded

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
4	1981	0.01	0.05	0.57	1.69	3.03	5.52	4.60	5.88	2.29	2.72	0.44	0.52	0.0547	0.0819
	1982	0.01	0.03	0.57	1.69	2.97	5.55	4.28	6.01	2.27	2.89	0.43	0.49	0.0527	0.0833
	1983	0.01	0.03	0.60	1.58	2.89	5.44	3.98	6.01	1.99	2.88	0.35	0.49	0.0491	0.0821
	1984	0.02	0.04	0.53	1.57	2.73	5.62	3.75	6.05	1.79	2.82	0.34	0.44	0.0458	0.0827
	1985	0.02	0.04	0.50	1.54	2.55	5.49	3.62	6.23	1.87	2.93	0.29	0.55	0.0442	0.0839
	1986	0.02	0.03	0.50	1.59	2.50	5.42	3.46	6.20	1.73	2.90	0.39	0.52	0.0429	0.0833
	1987	0.04	0.05	0.78	1.74	3.06	5.62	4.16	6.27	1.91	3.03	0.42	0.52	0.0519	0.0862
	1988	0.02	0.05	0.56	1.56	2.52	5.26	3.21	6.05	1.75	2.99	0.45	0.53	0.0425	0.0822
	1989	0.01	0.06	0.59	1.68	2.74	5.27	3.82	6.47	1.74	3.20	0.36	0.59	0.0463	0.0863
	1990	0.00	0.05	0.79	1.78	2.96	5.14	4.10	6.33	2.32	3.22	0.36	0.55	0.0527	0.0853
5+	1981	0.00	0.01	0.13	0.37	0.79	1.91	1.57	3.28	1.58	2.68	0.58	0.95	0.0233	0.0460
	1982	0.00	0.00	0.13	0.39	0.83	1.99	1.36	3.11	1.40	2.66	0.52	0.94	0.0212	0.0455
	1983	0.00	0.00	0.11	0.35	0.72	1.96	1.42	3.14	1.26	2.32	0.51	0.78	0.0201	0.0428
	1984	0.00	0.00	0.08	0.35	0.68	1.94	1.37	3.08	1.25	2.41	0.40	0.75	0.0189	0.0427
	1985	0.00	0.01	0.08	0.39	0.69	1.95	1.18	3.04	1.05	2.18	0.34	0.70	0.0167	0.0413
	1986	0.00	0.00	0.10	0.39	0.70	1.90	1.34	2.96	1.09	2.14	0.38	0.68	0.0180	0.0404
	1987	0.00	0.01	0.22	0.42	1.16	2.18	1.77	3.25	1.30	2.28	0.41	0.70	0.0243	0.0442
	1988	0.00	0.01	0.09	0.40	0.65	1.82	1.37	3.12	1.22	2.19	0.41	0.71	0.0187	0.0413
	1989	0.00	0.00	0.13	0.43	0.81	1.90	1.67	3.02	1.35	2.26	0.37	0.66	0.0217	0.0413
	1990	0.01	0.01	0.15	0.46	0.81	2.06	1.57	3.04	1.35	2.34	0.40	0.69	0.0215	0.0430
All Orders	1981	14.73	30.41	88.24	100.94	132.02	126.98	68.30	69.28	18.41	20.13	2.73	3.31	1.6223	1.7552
	1982	14.64	30.55	83.28	100.39	122.43	127.17	62.73	71.03	17.98	21.72	2.65	3.24	1.5185	1.7705
	1983	14.14	28.56	81.24	97.77	120.40	127.95	61.87	74.39	16.69	22.53	2.51	3.19	1.4842	1.7719
	1984	14.05	27.74	77.73	94.43	120.79	129.49	63.15	78.15	17.31	23.59	2.51	3.16	1.4777	1.7827
	1985	14.23	26.72	74.78	90.55	118.94	129.46	63.09	80.18	17.21	23.97	2.24	3.37	1.4524	1.7712
	1986	14.86	26.59	72.34	87.88	116.85	127.83	61.88	80.52	17.54	24.55	2.57	3.49	1.4302	1.7543
	1987	15.68	26.05	71.31	84.07	114.61	126.41	63.00	81.75	17.40	25.83	2.71	3.73	1.4235	1.7392
	1988	16.11	26.20	73.82	82.94	118.81	127.24	65.91	83.68	18.99	27.73	2.97	4.06	1.4830	1.7593
	1989	17.51	28.00	78.80	85.06	126.89	129.13	72.50	87.74	20.64	29.33	2.83	4.25	1.5958	1.8175
	1990	18.79	24.71	84.67	85.29	135.79	131.35	78.51	90.55	20.13	30.48	2.96	4.28	1.7195	1.8555

[1] 1981 to 1985 excludes Newfoundland.

Note: The small difference in the data between this table and others published in previous editions is explained by the denominators used. Henceforth, the denominator represents the average from 2 successive counts of the reference population as of January 1st.

Source: Statistics Canada, Vital Statistics, *Births and Deaths*, Catalogue No. 84-204, and final population estimates, Demography Division.

The fertility rate among the group aged 25 to 29 had been lower in Quebec than in the rest of Canada since 1982, but in 1990, it exceeded the rest. This situation is mainly attributable to first-and second-order births, which are higher in Quebec than elsewhere in Canada. Third and higher orders, however, remain below the others and the increase is small.

In the group aged 30 to 34, the increase in fertility has been growing constantly since 1981 in the rest of Canada, while it was shrinking in Quebec up to 1987. Since then, Quebec's increase has not been sufficient to catch up with the rest of Canada. The same outline is also valid for the group above that age, but at lower levels. The most significant progress occurring presently is attributable to first-and second-order births.

To conclude, the 1990 ncrease in fertility was still differential and in favour of Quebec, and it was still mainly attributable to first-and second-order births and mainly to Quebec women aged 20 to 34. The role of third-order births is still very small. Preliminary data from the Bureau de la statistique du Québec for 1991 suggest an increase in the third-order index and a decline in the first-order rate. If this were the case, the humorous comment in the 1991 report that one must bear a first child in order to one day have a third would be validated. Everything seems to occur as if a small segment of the population interested in having a large family had responded to the fiscal incentives provided by the provincial policy.

Births out of Wedlock

One of the main features of contemporary society is the dissociation of fertility from nuptiality.[14] As noted in the section on family, undoubtedly the increase in common-law unions is at the root of a phenomenon that has taken on significant proportions since 1983-84. But this reproductive behaviour is not the same in all provinces, expressing either long established cultural differences or emerging ones (Figure 4).

What is immediately noteworthy is that:

- the network of provincial curves is much wider for high-order births than for first-and second-order births;

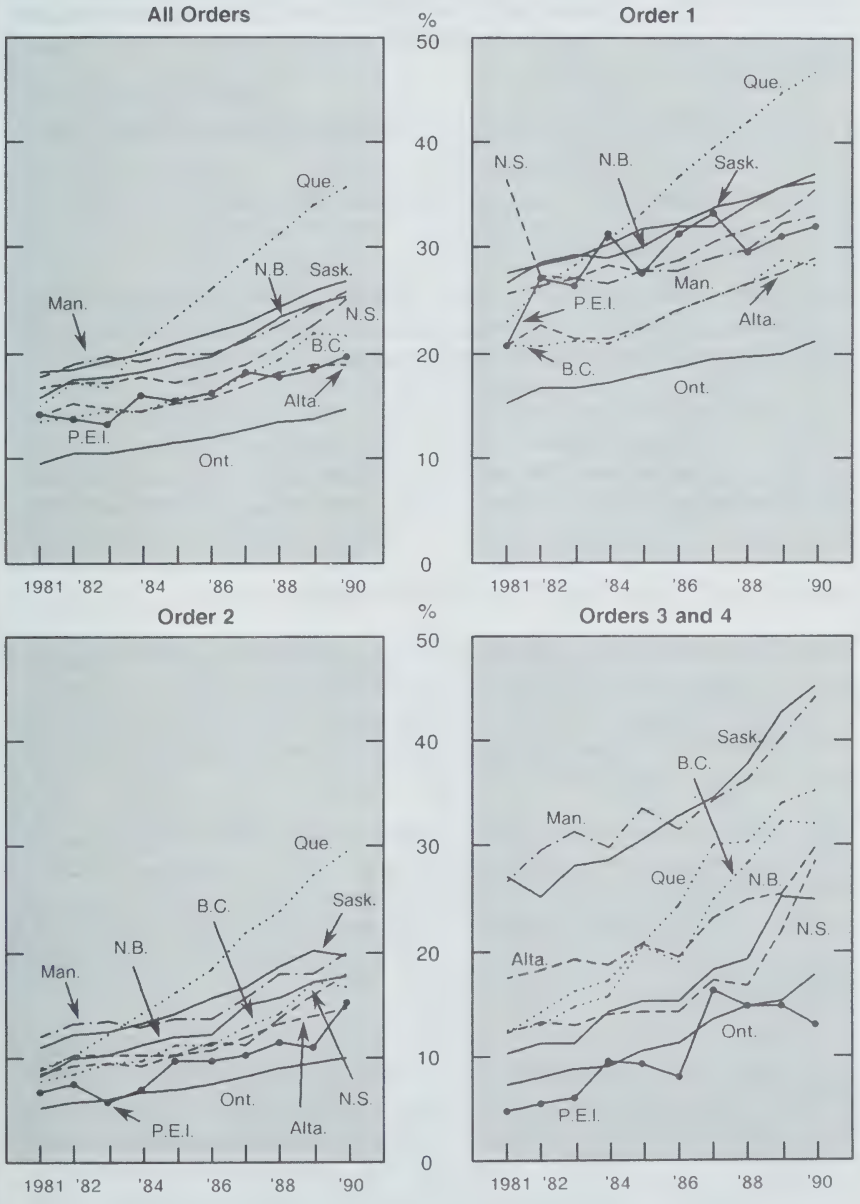
- for all orders, the network of curves broadens as the years go by;

- the proportions for first-and second-order births in Quebec indicate a steep increase, placing the province in first position by far, while the increase in proportions for Ontario is low, leaving this province in the very last position for all birth orders;

[14] Statistics Canada. Current Demographic Analysis. Jean Dumas and Yves Péron: *Marriage and Conjugal Life in Canada*, Ottawa, 1992. Catalogue No. 91-534.

Figure 4

Proportion of Births to Unmarried Women by Birth Order and Provinces, 1981-1990



Source: Statistics Canada, Vital Statistics, unpublished data.

- the highest average level occurs with first-order births (around 30% for the whole of Canada), whereas this average level is much lower in the case of second-order births (around 12%).

The answer to the questions raised by each of these observations would be long, but the reader will find the appropriate places where these main factors come into play:

- a somewhat differential rejection of the institution of marriage from province to province;
- late marriage after a child-producing common-law union;
- more traditional behaviour in Ontario;
- in the case of third-and fourth-order births, the Prairies come first among provinces, and one can suggest that this phenomenon is attributable to the higher proportion of Métis and Aboriginal people in those provinces.

The reader will have to bear in mind that this section refers to proportions of births by unwed mothers and not order-specific fertility measurement. Thus, in Saskatchewan where almost 50% of third-and fourth-order births are to unwed mothers, the order-specific birth rate for these orders is only about 9 per 1,000.

VOLUNTARY INTERRUPTIONS OF PREGNANCY

In the 1988 edition of *Report on the Demographic Situation in Canada*, a section in the second part was devoted to a description of voluntary interruptions of pregnancy in Canada and in the world. The most recent data analyzed at that time were from 1986. However, as the legal situation regarding abortion has changed since then, an update is in order.

Until 1988, voluntary interruptions of pregnancy were governed by an amendment to the criminal code on abortion. This amendment was a departure from the law prohibiting abortion. It authorized the performance of abortions only under very precise conditions and only by certain doctors in accredited hospitals. These abortions were defined as therapeutic, as they required formal authorization by a therapeutic abortion committee.

In 1988, the Supreme Court declared the law on abortion unconstitutional. This resulted in the decriminalization of voluntary interruption of pregnancy and the disbanding of committees. Since then, the judicial system's position has remained unchanged on the abortion issue as a new law proposed and voted on in May 1990 did not obtain Senate approval. Consequently, it is better to speak of "voluntary interruptions of pregnancy" performed in the medical environment and related statistics, as the adjective "therapeutic" has lost its significance in this context.

However, Canadian hospitals continue, as in the past, to send Statistics Canada the usual information on voluntary interruptions of pregnancies performed on their premises. As these reports have always underestimated the exact number of voluntary interruptions of pregnancies, this number remains unknown and probably always will.

The Recent Situation

Before 1988, although limited to therapeutic abortion data, one could deal with the information with reasonable confidence, as the demographic characteristics of the women concerned were systematically transmitted by the hospitals performing interventions. The use of this information has now become difficult because of the uncertainties surrounding its collection, as shown in the level of coherence between Tables 25 and 26. Information is sometimes missing and, for clinical intervention information is reduced to the mere number of cases. The time series required for the analysis of the evolution have thus been disrupted. At the national level, the following tables provide limited but relatively reliable data.

In Table 25, the total number for 1990 should be augmented by 1573 to take account of the interventions performed in the United States. It should be noted that the interventions performed in the US were declared on a voluntary basis

Table 25. Number of Known Voluntary Interruptions of Pregnancy by Province and Territory, 1990

Province	In Hospitals[1]	In Clinics[2]	Total
Newfoundland	462	63	525
Prince Edward Island	51	–	51
Nova Scotia	1 871	81	1 952
New Brunswick	542	–	542
Quebec	14,438	8,920	23,358
Ontario	31,224	10,200	41,424
Manitoba	2,529	1,051	3,580
Saskatchewan	1,336	–	1,336
Alberta	6,621	–	6,621
British Columbia	11,518	1,129	12,647
Yukon	142	–	142
Northwest Territories	335	–	335
Total	71,069*	21,921	92,513

* Add 23 Undeclared voluntary interruptions of pregnancy to reconcile data with Table 26.
[1] *Therapeutic Abortions*, Canadian Centre for Health Information.
[2] *Health Report 1991*, Volume 3, No. 4.

Source: Canadian Centre for Health Information, Statistics Canada.

Table 26. Number of Known Legal Voluntary Interruptions of Pregnancy, Rate per 1,000 Women Aged 13 to 44, Canada, 1971-1990

	Therapeutic Abortions[1]	Abortions Performed in the United States[1]	Non-Therapeutic Abortions Performed in Quebec[2]	Abortion Performed in Other Provinces[3]	Total Known Abortions	Rate of Known Voluntary Interruptions of Pregnancy (Per 1,000 Women Aged 13 to 44)
1971	30,923	6,309	-		37,232	7.3
1972	38,853	6,573	-		45,426	8.7
1973	43,201	5,501	-		48,702	9.1
1974	48,136	4,299	-		52,435	9.6
1975	49,311	4,394	-		53,705	9.5
1976	54,478	4,234	-		58,712	10.2
1977	57,564	2,300	486		60,350	10.3
1978	62,290	1,802	1,823		65,915	11.0
1979	65,043	1,073	2,879		68,995	11.4
1980	65,751	1,644	5,348		72,743	11.8
1981	65,053	2,651	5,151		72,855	11.6
1982	66,254	4,311	5,714		76,279	12.1
1983	61,750	3,983	5,794		71,527	11.2
1984	62,247	3,631	6,284		72,162	11.2
1985	62,712	2,798	4,391		69,901	10.8
1986	63,462	2,612	3,561		69,635	10.7
1987	63,585	2,757	3,681		70,023	10.7
1988	66,137	1,939	4,934		73,010	11.0
1989	70,705	1,551	5,192		77,448	11.6
1990	71,092	1,573	7,327	14,117	94,109	14.0

[1] Statistics Canada, Centre for Health Information.
[2] According to la Régie de l'assurance-maladie du Québec.
[3] Comprising 1,116 abortions performed in Local Community Services Center in Quebec.

and that only 16 (bordering states) submitted declarations. It is also noteworthy that Massachusetts, California and Florida were not among them, even though these states are popular destinations for Canadians.

The Quebec Case

Long before the law on abortion was declared unconstitutional, Quebec did not respect it, and besides abortions performed in accredited hospitals, many others were performed by doctors in clinics, in women's health centres and in certain Local Community Service Centres (CLSC).[15] Apart from voluntary interruptions of pregnancy performed in CLSCs, the *Régie de l'assurance-maladie du Québec* kept a precise accounting of activity, based on the forms received from doctors requesting remuneration for interventions performed. Table 27 permits a comparison between the counts done by the *Régie* and the statistics on therapeutic abortions compiled by the Canadian Centre for Health Information of Statistics Canada.

[15] Physicians in these centres receive a salary and are not remunerated case by case.

Table 27. Voluntary Interruptions of Pregnancy, Quebec, 1978-1990

Year	Number of Therapeutic Abortions[1] According to the Federal Law (1)	Therapeutic Abortions According to la Régie[2] de l'assurance-maladie du Québec			
		In Hospitals (2)	In Clinics (3)	Total (4)	Annual Increase (5)
1978	7,881	7,187	2,618	9,805	-
1979	8,609	8,130	3,629	11,759	2.0
1980	8,940	9,591	4,704	14,295	2.2
1981	9,042	9,544	4,207	13,751	-3.8
1982	9,671	11,537	4,506	16,043	1.7
1983	9,406	11,631	3,635	15,266	-4.8
1984	9,720	12,372	3,571	15,943	0.4
1985	11,311	12,654	3,711	16,365	2.6
1986	12,410	12,520	3,565	16,085	-1.7
1987	11,871	13,372	3,681	17,053	6.0
1988	12,773	13,529	4,934	18,463	8.3
1989	13,854	13,751	5,192	18,943	2.6
1990	14,438	14,118	7,327	21,445	13.2

[1] Statistics Canada, Canadian Centre for Health Information.
[2] Documents provided on request.

It is notable that in 12 years the number of voluntary interruptions of pregnancy (even underestimated due to the absence of interventions performed in CLSCs) has risen considerably - from 9,805 to 21,445 - an increase of 120%. However, this rise has by no means been constant, since large increases from one year to the other have also at times been followed by decreases.

As in all demographic analysis, numbers do not permit the measurement of the population's propensity to experience certain events. For a real measure, one must refer to rates and derived indices. In this case, the total abortion rate seems most appropriate. Built in the same manner as the total fertility rate, the total abortion rate indicates the number of abortions that 1,000 women would generate, if, during the course of their fertile lifetime, they were to experience abortions at the age-specific rates observed today. The advantage of this index is that it is unaffected by the age structure of the female population. Table 28 demonstrates that over the course of recent years the index has risen considerably.

Table 28. Age-Specific and Total Rates of Voluntary Interruptions of Pregnancy (per 1,000), Quebec, 1978-1990

Age	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
13-14	0.58	0.76	1.60	1.01	1.16	1.39	1.44	1.36	0.83	1.28	1.33	1.57	1.54
15-19	6.38	7.74	9.88	9.76	10.97	10.43	11.59	11.78	12.02	12.12	13.49	14.69	16.58
20-24	9.76	11.86	14.20	14.14	15.36	15.37	16.72	16.50	17.40	17.57	19.73	21.24	26.58
25-29	8.22	9.30	11.79	11.28	12.64	12.45	13.10	12.73	12.82	12.70	14.05	15.23	18.16
30-34	5.98	6.88	8.03	8.10	8.54	8.91	9.24	9.03	9.16	9.11	9.40	10.02	11.78
35-39	3.69	3.93	4.73	4.71	4.80	5.18	5.23	5.26	5.40	5.13	5.38	5.73	6.60
40-44	1.29	1.48	2.09	1.75	3.52	1.70	1.64	1.12	1.51	1.36	1.49	1.66	1.81
45-49	0.15	0.16	0.26	0.15	0.22	0.17	0.15	0.19	0.11	0.11	0.12	0.14	0.13
Total V.I.P. Rate	178.55	208.24	256.91	251.46	282.56	273.83	295.55	290.25	293.76	293.06	320.96	346.69	411.28

Source: Calculations made using data provided by the Régie d'assurance-maladie du Québec.

When using this composite rate as a measurement of intensity, the value of this indicator is often questioned. In other words, to what degree does this cross-sectional index accurately reflect the behaviour of the real cohorts? Given the briefness of the data series, it is only possible to find partial information. The 1963 cohort (women 15 years of age in 1978) provides the most complete information and, by summing the abortion rates for the age groups to which this cohort has belonged, one can get a better measurement of intensity. With the numbers from Table 28, we calculate a total of 174 abortions per 1,000. In other words, 1,000 women of that cohort would have been responsible for 174 abortions between 15 and 27 years of age.

Assuming a stable situation after 1990 (which is a low assumption) one can discern with the same calculations that women in the 1965 and 1967 cohorts are having more and more recourse in this practice as the number of abortions has increased to 181 and then to 222 for women before 30 years of age.

A Note on Ontario

Ontario has had the largest increase in the number of known voluntary interruptions of pregnancy since some are now performed in clinics. Even though all interruptions in Ontario have probably not been accounted for, a reasonable comparison with Quebec can be made. Although only data on the total number of cases are available, the hypothesis that the age-specific distribution of voluntary interruptions of pregnancy are close to those performed in hospitals is tenable.[16] After distribution, the total abortion rate has been calculated and established at 537 per 1,000 (calculations not presented here) a higher value than that for Quebec at 411 (see Table 28).

Voluntary Interruptions of Pregnancy and Fertility

It was shown in 1988 that the effects of voluntary interruptions on contemporary Canadian fertility was hardly noticed in statistical measurements, as contraception played a greater controlling effect. In addition, it can be observed that the slight increase in fertility recently observed in Ontario and Quebec (see Fertility) is concomitant with an accompanying increase in the practice of voluntary interruptions of pregnancy, unless this is a statistical artefact of better measurement of the latter.

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[16] In fact, in Quebec for 1990, the distribution by age of woman of voluntary interruptions of pregnancy performed in clinics, differed very slightly from those performed in hospitals. A slightly higher number of interruptions involving women under 20 or over 30 occurred in hospitals.

MORTALITY

Life expectancy at birth in 1990 increased over its 1989 value: men gained 0.35 of a year, and women 0.25 of a year. For the 1986-1991 period, the gains for men represent 1.16 years and 1.08 years for women. It also confirms that the progression is slower than for the 1976-1981 period, and identical to that between 1981-1986. But for women, the current data show higher increases than the previous five-year period: 1.08 years instead of 0.67 of a year (Table 29). Nevertheless, since the 1976-1981 period, the male increases in life expectancy are still above those of women (Figure 5).

Increasing Longevity and Causes of Death

The currently concluding century has seen the greatest progress ever achieved in increasing mean lenght of life in both industrialized and developing countries. There is still much speculation, however, about the increase in potential longevity that the human species has effectively achieved. In any event, the increased life expectancy has been accomplished through the reduction, or even the eradication, of certain causes of death that were devastating early in life among past generations. Also, early on, the question arose about how the reduction of certain deadly diseases and their eventual eradication would affect the increase in life expectancy at birth. At the same time, two very different survival outlines emerged (male and female), creating an increasingly significant difference up to recently, between the sex's life expectancies. Science has thus tried to measure the impact of certain causes of death on life expectancy and to compare male

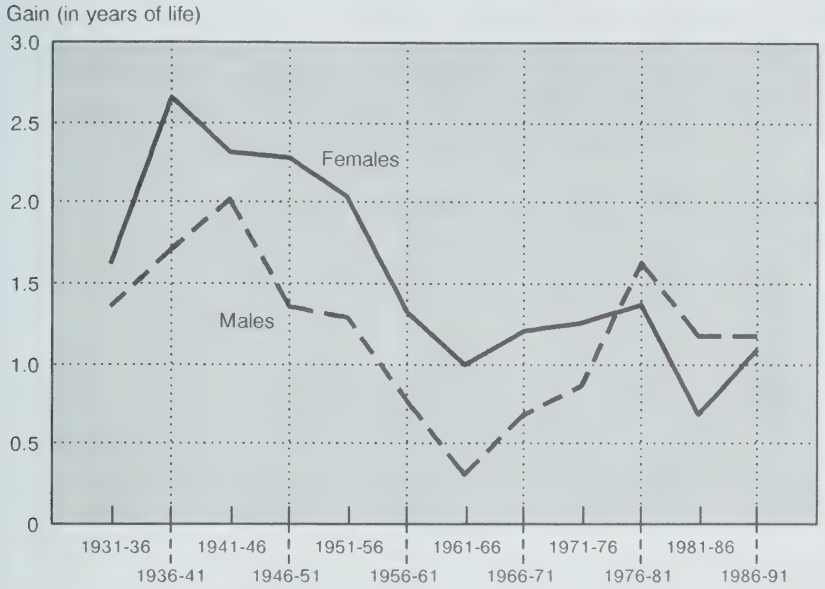
Table 29. Estimated Life Expectancy at Birth, Canada and Provinces, 1989 and 1990

Provinces	Males		Females	
	1989	1990	1989	1990
Newfoundland	73.10	73.02	79.22	79.31
Prince Edward Island	72.88	72.85	80.84	80.65
Nova Scotia	72.81	73.12	79.71	79.90
New Brunswick	73.33	73.67	80.39	80.48
Quebec	72.72	72.97	80.24	80.57
Ontario	74.06	74.40	80.28	80.55
Manitoba	73.71	74.19	80.43	80.57
Saskatchewan	74.36	74.70	81.17	81.28
Alberta	74.21	74.52	80.68	81.05
British Columbia	74.38	74.67	80.72	80.92
Canada	73.66	73.97	80.35	80.60

Source: Calculations made by Demography Division using data from Vital Statistics.

Figure 5

Gains in Expectation of Life at Birth, for Five-year Periods, Canada, 1931-1991



Source: Statistics Canada: Longevity and Historical Life Tables, Cat. 89-506 and author calculations for recent periods.

and female behaviour. For a long time, estimation methods were inadequate, and as a result, the discussions had always left a certain degree of scepticism about how significant a role certain causes of death were having on longevity. Over about the last decade, statistical methods have emerged from research by J.H. Polard[17], and up to now, no objections have arisen about the validity of conclusions arrived at by means of calculations from these methods. An important analysis on the evolution of mortality is being conducted at Statistics Canada, and a brief description of two results obtained by Rhéal Lortie[18] seems most opportune.

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[17] "The expectation of life and its relationship to mortality", in *Journal of the Institute of Actuaries*, 1982, no. 109, pp. 225-240.
"Causes de décès et espérance de vie: quelques comparaisons internationales", in: *Mesure et analyse de la mortalité* (Vallin, D'souza et Palloni) I.N.E.D., Cahier no. 119, 1988, pp. 290-313.
"On the decomposition of changes in expectation of life and differentials in life expectancy", in: *Demography*, vol. 25, no. 2, May 1988, pp. 265-276.

[18] Rhéal Lortie is a demographer in the Projection Section of Demography Division.

Table 30. Contribution of Selected Causes of Death to the Difference Between Life Expectancy at Birth of Males and Females, Canada, 1976 and 1986

Age	Results in Hundredths of a Year				
	Diseases of the Circulatory System (390-459)	Cancer (140-239)	Accidents and Injuries (E800-E999)	Other Causes	Total
	Males				
0-1	1	0	2	39	41
1-4	0	0	4	4	8
5-9	−0	1	4	1	6
10-14	0	1	3	0	4
15-19	0	1	10	0	11
20-24	0	1	9	−0	10
25-29	0	0	5	−1	4
30-34	2	−0	2	−1	3
35-39	3	0	2	−0	5
40-44	5	1	3	−2	11
45-49	12	−0	4	5	21
50-54	14	−0	3	5	22
55-59	21	−3	2	5	26
60-64	23	−4	2	6	27
65-69	22	−4	1	3	22
70-74	23	−2	1	−1	23
75-79	20	−3	1	−5	13
80-84	19	−2	−0	−5	12
85+	1	−0	−0	−0	1
Total	168	−13	57	59	270
Gain in Percent	62	−5	21	22	100
	Females				
0-1	0	−0	1	33	34
1-4	0	−0	3	2	5
5-9	−0	1	3	1	5
10-14	0	0	1	1	2
15-19	0	0	2	0	2
20-24	0	1	2	0	3
25-29	0	−0	1	0	1
30-34	1	0	2	2	5
35-39	2	1	2	2	7
40-44	3	−1	2	3	7
45-49	4	−0	2	4	10
50-54	6	−2	1	3	8
55-59	7	−1	2	3	11
60-64	13	−2	1	2	14
65-69	19	−5	1	1	16
70-74	21	−3	0	−3	15
75-79	27	−3	0	−4	20
80-84	30	−1	0	−5	24
85+	14	−1	−0	−7	6
Total	146	−17	28	38	195
Gain in Percent	75	−9	14	19	100

Source: Calculated using the method employed by the United Nations and data on causes of death from the Canadian Centre for Health Information for the years under consideration.

The Contribution of Certain Causes of Death Related to Gains in Expectation of Life at Birth, among Men and Women, Between 1976 and 1986

In order to avoid any potential biases attributable to differences in methods of calculating mortality tables at two dates, the tables have been recalculated using identical methods. The author selected causes of death traditionally known as the most deadly to evaluate their effect relative to gains that have been achieved during the interval. Table 30 shows the results.

Men have increased their life expectancy by 2.7 years over 10 years and 1.7 of these is attributable to the reduction of death caused by circulatory system diseases, representing 62% of the gains. Also evident is the fact that gains were

Table 31. Contribution of Selected Causes of Death to the Difference Between Life Expectancy at Birth of Males and Females, Canada, 1976

Age	Results in Hundredths of a Year				
	Diseases of the Circulatory System Causes 390-459	Cancer Causes 140-239	Accidents and Injuries Causes E800-E999	Other Causes	Total
0-1	1	0	1	21	23
1-4	0	1	5	1	7
5-9	0	0	3	0	3
10-14	0	0	5	0	5
15-19	0	1	24	1	26
20-24	0	1	30	1	32
25-29	1	1	20	0	22
30-34	3	−1	13	1	16
35-39	5	−2	9	2	14
40-44	11	−1	10	3	23
45-49	22	−2	8	7	35
50-54	34	2	8	9	53
55-59	46	8	6	12	72
60-64	51	15	5	17	88
65-69	52	21	3	16	92
70-74	51	24	3	19	97
75-79	41	20	2	17	80
80-84	29	15	1	16	61
85+	10	6	1	10	28
Total	356	111	156	153	776
Percentage	45.9	14.3	20.1	19.7	100.0

Source: See Table 30.

concentrated among those of relatively advanced age (50 years of age and beyond), which is not at all surprising considering that the risks of vascular accidents increase with the aging process. The second observation relates to deaths from cancer. The gains in life expectancy resulting from the fight against cancer are virtually nil and even negative. Finally, the increase in life expectancy due to a decrease in fatal accidents is not negligible (0.6); in other words, it is as significant as all gains attributable to all other causes of death combined (except for cardiovascular diseases).

The expectation of life at birth among women has increased slightly less than that for men (approximately 2 years compared with 2.7). Gains related to circulatory system diseases, however, have been virtually the same as for men (1.5 years compared with 1.7). Also, the fight against cancer has not produced better results. For the other causes of death, including accidents, gains have been lower than for men, which should not be surprising since their level was already much lower.

Secondly, Lortie focused on the difference of life expectancy between men and women. For this purpose, he selected the year 1976. The difference between sexes was then 7.8 years in favour of women. Table 31 indicates that almost half of this advantage for women was attributable to an excess male mortality from circulatory system diseases (46%), 20% to an excess mortality due to accidents and only 14% due to cancer. As the gains in life expectancy between 1976 and 1986 due to victories over circulatory system diseases were virtually identical among men and women, the "lagging behind" of men in 1976 is measured. It should also be noted, to concur with what has already been said about accidents, that if men made substantial gains between 1976 and 1986, it is also because they had a 1.6 year deficit in relation to women.

Review of Principal Causes of Death

Cancers and Circulatory System Diseases

These summaries resulting from long calculations evaluating the progress in the fight against death should be compared with more basic measures calculated each year. The chronological series of standardized death rates due to circulatory system diseases shows a decrease from year to year, which corroborates the previous results. But this progress also translates into an increase in the probability of death from cancer resulting mainly from the fact that those who escape death from heart disease become at risk of dying from cancer. This is why the death rate due to this cause increases almost regularly. Indeed, if there is any progress in the fight against cancer, it is not apparent in this type of analysis. This analysis only highlights the differential rate of progress in the fight against these two causes (Table 32).

Table 32. Variations in Deaths Caused by Neoplasms and Diseases of the Circulatory System by Sex, Canada, 1969-1990[1]

Year	Diseases of the Circulatory System[2]	Ischemic Heart Diseases[3]	Cerebro-vascular Diseases[4]	Tumours and Cancers[5]
	Males			
1969	438.47	299.14	74.41	-
1970	431.50	297.73	73.57	-
1971	423.36	289.09	72.45	-
1972	425.73	289.79	73.58	-
1973	419.72	284.53	71.00	-
1974	420.32	285.07	70.39	-
1975	404.52	274.18	67.49	-
1976	400.27	271.66	64.17	169.37
1977	398.39	266.14	61.21	173.73
1978	374.85	253.05	58.69	175.32
1979	362.97	237.96	56.50	177.02
1980	354.56	232.80	53.49	178.25
1981	340.03	224.87	51.36	175.70
1982	333.28	218.93	48.09	179.32
1983	320.20	209.96	45.33	178.57
1984	306.12	200.68	43.98	182.40
1985	298.76	195.73	41.77	182.87
1986	291.37	188.44	40.45	183.52
1987	275.09	179.17	39.61	183.25
1988	268.41	174.32	37.90	187.67
1989	258.51	165.15	38.44	185.37
1990	239.49	151.71	37.00	183.82
	Females			
1969	363.54	204.35	90.58	-
1970	351.71	200.24	87.32	-
1971	342.54	192.24	86.41	-
1972	341.65	191.55	86.31	-
1973	335.05	190.07	81.73	-
1974	332.95	190.05	81.81	-
1975	318.28	178.17	79.46	-
1976	309.05	174.28	74.45	132.30
1977	298.59	169.11	69.92	134.77
1978	289.00	164.90	66.12	134.83
1979	278.88	151.93	64.85	137.49
1980	277.09	150.92	61.87	135.88
1981	263.16	143.52	59.65	136.40
1982	259.87	141.57	57.13	136.71
1983	247.29	133.93	54.02	136.80
1984	239.43	131.70	50.98	139.19
1985	233.61	125.74	49.98	142.22
1986	230.55	124.51	49.67	142.40
1987	216.41	117.74	46.24	142.60
1988	211.94	113.78	46.40	143.53
1989	203.25	108.10	45.10	141.71
1990	191.57	102.71	41.68	141.82

[1] Rate per 100,000, standardized on the structure of the 1976 Canadian population.
[2] Causes 390-459, 9th Revision of the ICD.
[3] Causes 410-414, 9th Revision of the ICD.
[4] Causes 430-438, 9th Revision of the ICD.
[5] Causes 140-239, 9th Revision of the ICD.

Table 33. Mortality[1] Rate Due to Traffic Accidents (Causes 810 to 819 in the I.C.D.) by Age Group and Sex, Canada, 1971, 1982 to 1990

Age Groups	1971		1982		1983		1984		1985		1986		1987		1988		1989		1990	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0-4	11	9	5	4	5	4	3	5	4	4	5	4	6	6	5	3	6	4	5	3
5-9	17	13	6	6	9	5	7	5	8	6	6	5	7	4	7	6	6	5	6	4
10-14	15	8	10	6	9	4	8	5	7	5	8	4	9	5	8	5	7	4	8	5
15-19	63	25	48	16	44	16	46	13	47	16	44	16	46	16	45	16	41	17	35	12
20-24	86	21	51	11	57	13	49	12	53	13	48	12	51	13	48	12	45	15	38	13
25-29	48	13	33	9	32	9	32	9	32	8	29	9	33	9	31	8	33	10	29	8
30-34	39	9	22	7	26	8	22	6	23	7	22	7	24	8	25	8	25	8	23	7
35-39	34	13	16	9	21	7	19	8	20	8	20	6	19	8	20	6	21	9	17	6
40-44	30	12	18	8	21	6	19	8	20	8	17	8	16	7	18	6	18	8	14	8
45-49	33	12	22	7	15	9	17	7	17	10	16	7	17	8	16	7	16	8	13	7
50-54	33	12	17	7	19	9	18	8	14	9	15	8	17	10	15	6	15	7	14	7
55-59	35	16	20	9	18	11	18	9	15	11	21	10	18	9	16	11	17	9	14	8
60-64	36	20	17	11	19	8	18	9	20	9	15	11	20	9	19	9	20	11	20	9
65-69	45	24	21	14	17	10	17	9	17	13	19	13	25	13	19	10	22	15	17	10
70-74	47	21	28	17	23	15	23	15	28	16	25	16	26	16	25	16	29	15	23	12
75-79	47	25	32	14	30	15	37	23	31	16	33	19	26	18	34	15	34	16	29	18
80-84	55	23	45	16	38	19	41	17	35	19	33	15	46	16	37	22	57	15	38	17
85+	40	16	38	8	43	8	34	9	48	11	37	12	35	12	37	14	45	9	33	9
Standardized Rates[2]	39	13	24	9	24	9	23	9	23	10	22	9	24	9	23	9	23	10	20	8

[1] Rate per 100,000.
[2] Standardized on the 1976 population.

Road Accidents

The rates, which had stabilized around 23 per 100,000 among men and 9 per 100,000 among women at the beginning of the 1980s, seemed to decrease further in 1990 (Table 33). Death due to accidents tends to be overestimated. Indeed, a fairly great number of fatal accidents involve young people, and in calculating the rate by age, the denominator for young adult ages is probably too low as a result of significant undercounting in those age groups at census.

AIDS

There is no doubt that AIDS threatens the whole world and particularly some regions. However, in Canada, while the number of AIDS-related deaths is increasing among men, the rate of increase in the number of deaths overall is not accelerating.

This increase, which had been 25% between 1987 and 1988, and 29% from 1988 to 1989, was only 15% from 1989 to 1990. For the second year, the number of deaths among women even regressed, as there were 12 fewer in 1990 compared with 1988. There were also slightly fewer victims among men aged 15 to 29. The whole increase is concentrated among men older than 30. This may be due to effectiveness of prophylaxis which have been promoted among young people during the past few years. We should remember however, that a single year of "good news" is not enough to judge the trend of a not-too-well-known cause of death.

Table 34. Deaths from Human Immunodeficiency Virus (H.I.V.) (Causes 042-044 in the I.C.D.) by Broad Age Groups and Sex, Canada, 1987-1989

Year	Sex	Age Groups					Total
		0-14	15-29	30-44	45-59	60+	
1987	Males	1	85	293	87	22	488
	Females	5	7	12	8	5	37
1988	Males	2	96	361	126	29	614
	Females	3	10	28	7	9	57
1989	Males	3	124	485	164	21	797
	Females	2	10	20	10	12	54
1990	Males	3	108	576	215	35	937
	Females	1	14	19	7	4	45

Source: Statistics Canada, unpublished data from the Canadian Centre for Health Information.

INTERNATIONAL MIGRATION

Counts

The final count of landed immigrants in 1990 (214,230) exceeded slightly (by 2,064) the provisional counts published in the 1991 report (212,166). As well, the preliminary data for 1991 discussed in the current report will most likely be revised upwards somewhat. The increase in arrivals in 1991 compared with 1990 indicates that Canada is trying to achieve the global objectives set in its immigration plan until 1995, which projected 220,000 entries for 1991. Table 35 shows the count for 1991 and the part representing the pending cases.

Canada, along with the United States, Australia, and New Zealand contrary to European countries, are countries open to immigration. In addition, immigration has always accounted for part of Canada's annual growth. However, as shown in Figure 6, though the size of the immigrant population since the end of the Second World War has continually fluctuated from highs to lows, the variations no longer result in comparable levels of immigration.

New Immigration Law

As time goes on, however, the demographic, economic, political, and social situation is changing both in Canada and in the rest of the world. As it is, policies must be adapted so that needs and possibilities are reconciled. Canada's

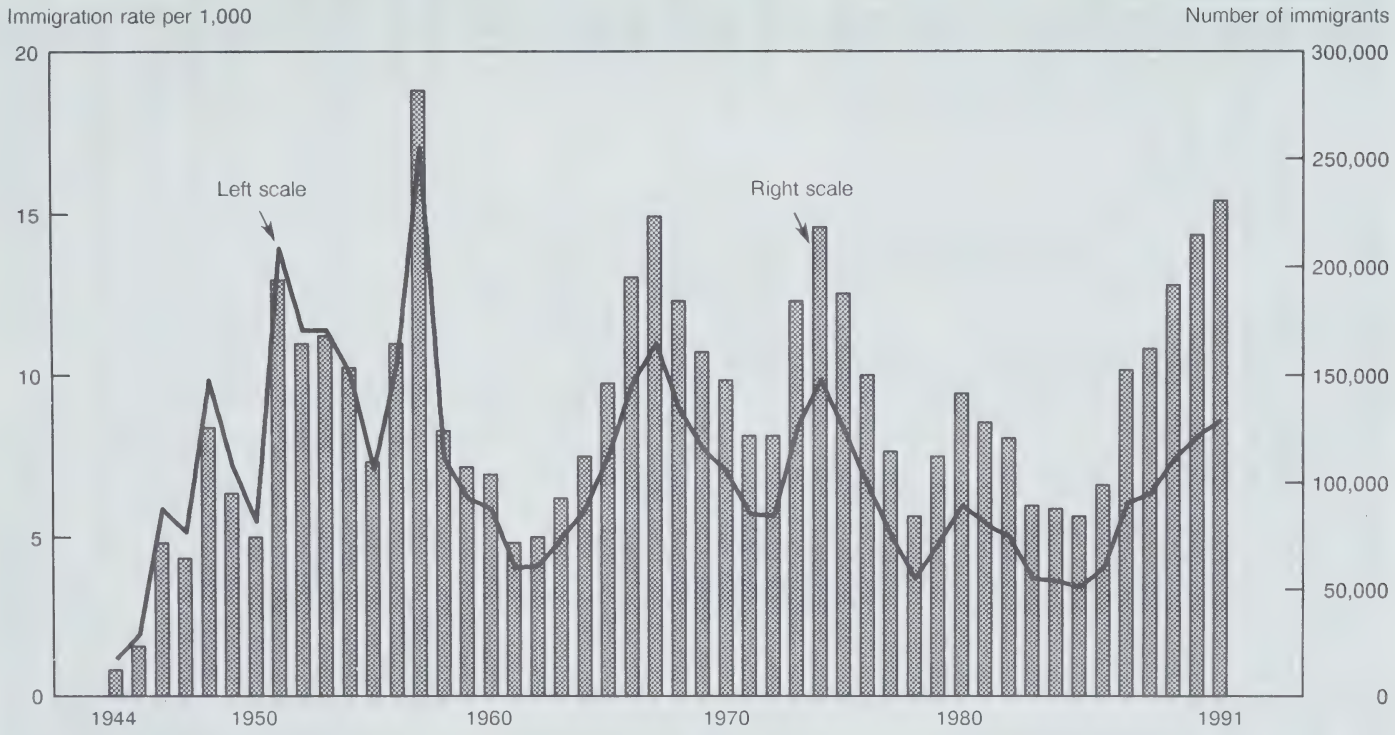
Table 35. Number of Immigrants Expected and Admitted in 1991 by Category

Category	Expected	Received	Difference
Family	80,000	85,539	5,539
Refugees	13,000	18,178	
Designated Categories	33,500	34,553	
Subtotal	46,500	52,731	6,231
Independent Immigrants	41,000	46,956	5,956
Assisted Parents	19,500	22,179	2,679
Business Persons	28,000	16,957	– 11,043
Retired Persons	5,000	4,195	– 805
Total	220,000	228,557	8,557
Reported Late	24,873		
Net Total for the Year	220,000	203,682	– 16,318

Source: Immigration Canada: *Annual Report to Parliament*, November 1991, IM-094/10/91.
Immigration Canada: *Immigration Statistics*, published annually.

Figure 6

Number of Immigrants and Immigration Rates, Canada, 1944-1991



Source: Employment and Immigration Canada, Immigration Statistics, 1990.

Immigration Act was amended in 1976 and it still governs the country's immigration. However, since it came into effect, year after year it has revealed inadequacies in responding to conditions that have been changing relatively fast. Therefore, a new bill (C-86) was introduced,[19] which will govern arrivals in Canada differently. For now, the Department of Employment and Immigration follows the program developed and approved by Parliament[20] in 1990, which projected 220,000 immigrant arrivals for 1991, and 250,000 per year until 1995. Those levels of immigration were established through consultations with a considerable number of social and economic stakeholders from Canada. The compositions of the flows of immigrants are not subject to quotas as they are in the United States, but aim at reaching levels considered desirable. In the current plan, main consideration was given to reunification of families, political asylum for refugees and to immigration based on economic reasons. This last consideration is clearly expressed in the increase in the number of arrivals planned in this category, which should rise from 88,500 in 1991 to 112,000 in 1995 (40% to 45%, if the number of arrivals reflects the objectives). During the last few years (Table 36), the trend towards an increase among the refugee and designated categories had the consequence of reducing the proportion of other categories, despite a strong increase in numbers.

Under the new Act, the different categories of immigrants would be classified into three groups, each with its own characteristics. The first one would comprise members of the immediate family of persons living in Canada (dependent children, spouses and fiancé(e)s); persons recognized as refugees by the Immigration and Refugee Board, according to the Geneva Convention; and, business people, especially investors. Requests of candidates from this latter group would be processed on a priority basis and no set annual limit would be imposed. The only aspects considered would be the eligibility criteria.[21]

The number of arrivals from the second and third groups would be subject to a limit defined in the immigration plan, more stringent for the third than for the second. Included in the second group are parents and grandparents of Canadian residents; refugees sponsored by the government or private citizens; applicants to pre-arranged self-employment; and people admitted into the country for the public good. Finally, the third group would include independent immigrants; persons in demand in designated professions; and, qualified entrepreneurs.

The legislation shows a concern that immigration be economically beneficial to the country, and a clear desire that refugee cases be processed both expeditiously and vigilantly. Under the current Act, refugees may stay in Canada

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[19] Bill C-86. *An Act to Amend the Immigration Act and Other Acts in Consequence thereof*. First reading June 16, 1992.

[20] *Annual Report* tabled in Parliament, Employment and Immigration Canada 117-094/10/91.

[21] See background document included with the June 1992 release Catalogue: Employment and Immigration. Mc-P(11-85) E.

Table 36. Immigrants to Canada by Category, 1981-1991

		Family	Refugees	Designated Persons	Aided Parents	Independent Immigrants	Total
1981	No.	51,017	810	14,169	17,590	45,032	128,618
	%	39.7	0.6	11.0	13.7	35.0	100.0
1982	No.	49,980	1,791	15,134	11,948	42,294	12,147
	%	41.3	1.5	12.5	9.9	34.9	100.0
1983	No.	48,698	4,100	9,867	4,997	21,495	89,157
	%	54.6	4.6	11.1	5.6	24.1	100.0
1984	No.	43,814	5,625	9,717	8,167	20,916	88,239
	%	49.7	6.4	11.0	9.3	23.7	100.0
1985	No.	38,514	6,080	10,680	7,396	21,632	84,302
	%	45.7	7.2	12.7	8.8	25.7	100.0
1986	No.	42,197	6,490	12,657	5,890	31,985	99,219
	%	42.5	6.5	12.8	5.9	32.2	100.0
1987	No.	53,598	7,473	14,092	12,283	64,652	152,098
	%	35.2	4.9	9.3	8.1	42.5	100.0
1988	No.	51,331	8,741	18,095	15,567	68,195	161,929
	%	31.7	5.4	11.2	9.6	42.1	100.0
1989	No.	60,774	10,210	26,794	21,520	72,703	192,001
	%	31.7	5.3	14.0	11.2	37.9	100.0
1990	No.	73,457	11,398	28,291	23,393	77,691	214,230
	%	34.3	5.3	13.2	10.9	36.3	100.0
1991	No.	85,539	18,178	34,553	22,179	68,108	228,557
	%	37.4	8.0	15.1	9.7	29.8	100.0

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

for a long period at the government's expense, and in the same way, adding to the chance of being accepted.

The refugee issue has become a problem with considerable acuteness in the last few years.[22] On the one hand, the pressure from the Third World on industrialized countries keeps growing for demographic, economic and political reasons. On the other hand, European countries are virtually closed to immigration, and so-called countries of immigration (Canada, United States and Australia) consider that their absorption capacity is completely at odds with the demand from developing countries. As a result, claiming refugee status according to the Geneva Convention in the signatory countries has become a compelling option (this is why refugee claims are also so numerous in European countries).

[22] See *Report on the Demographic Situation In Canada, 1991*, "Overview of the Principal World Migratory Flows Since World War II".

This also explains why the number and the proportion of refugees and persons from the designated class have both continued to grow in Canada over the past 10 years (see Table 36). These two classes combined have grown from 15,000 to 52,000.

Origin and Destination of Immigrants

The origin of immigrants varied little in 1991 compared with the previous year (Table 37). A decline in arrivals from Hong Kong and an increase in the number of Chinese from continental China was, however, observed. This is most likely the result of the repression from Bejing, considering there is a large numerical difference between those born in China and those arriving from China. A substantial increase is also notable in immigrants from El Salvador, Sri Lanka, Iran, Somalia, Guatemala and Nicaragua. These increases are attributable to refugees from these countries. Of the 19,425 accepted as refugees by the Immigration and Refugee Board, 13,150 (68%) came from these countries.

Immigrants originating from the former Soviet bloc and Eastern Europe (Poland excepted) did not increase from 1989 to 1990. This is not easily explained considering that when the Soviet empire disintegrated, several observers expected a flood of emigrants towards Western countries because of the much higher standards of living. It should be noted that the European countries, except for Germany, although contiguous, are only now beginning to be affected by a large number of arrivals. This confirms that migratory phenomena do not lend themselves to the simplistic analysis that may arise from lack of knowledge or by underrating the difficulties and obstacles migrants must confront, and their deep attachment to their country of origin. However, the persistence of wide discrepancies as to the standards of living is likely, sooner or later, to heighten the appeal of migration. Migrants adapt to policies in place, tolerances and amnesties.[23]

Generally, the most important segment of immigrants to Canada (42%) come from Southern, Eastern and Southeast Asia (see Table 38).

As to the province of destination (Table 39), there are no significant changes. The segment migrating to Quebec has, however, been increasing regularly since 1988, while the segment destined for Ontario has declined somewhat. Nevertheless, except for British Columbia and Alberta, the other provinces attract very few immigrants, including refugees. This phenomenon is not surprising considering that regardless of the geographic scale or the region considered, migration is almost invariably urban. The trend to regrouping in urban centres is a universal phenomenon. Concerning this issue, the next *Immigration Act* will try to introduce certain categories of people who wish to settle in Canada, at least temporarily, in regions that are facing demographic decline, through a form of contract between them and the Canadian government.

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[23] Recent ethno-political phenomenons in the Balkans have already had significant repercussions on the migration of refugees in Europe, and will inevitably affect Canada very soon.

Table 37. Countries from which more than 1,000 Immigrants were Admitted, in either 1989, 1990 or 1991

Country of Birth	1989	1990	1991[1]
China	9,001	14,193	20,544
Hong Kong	15,694	23,134	16,352
Poland	16,042	16,536	15,701
India	10,738	12,572	14,238
Philippines	11,907	12,590	12,580
Lebanon	6,927	12,954	12,163
Vietnam	9,581	9,175	8,867
El Salvador	2,933	4,375	7,098
Sri Lanka	2,728	3,430	7,034
Iran	4,301	3,975	6,508
United Kingdom	7,338	6,692	6,355
United States	5,814	5,067	5,236
Portugal	5,094	5,405	5,171
Jamaica	4,008	5,017	5,089
Taiwan	3,185	3,549	4,225
Guyana	3,376	2,888	3,351
Somalia	444	1,141	3,194
Trinidad and Tobago	3,010	2,809	2,960
Haiti	2,393	2,387	2,843
Pakistan	2,039	2,138	2,755
France	2,128	1,996	2,613
South Korea	3,008	2,080	2,593
Romania	2,213	2,968	2,587
Ethiopia	2,309	2,421	2,561
U.S.S.R.	2,177	2,819	2,415
Guatemala	774	1,032	2,134
Egypt	1,757	2,521	1,930
Yugoslavia	2,073	1,959	1,828
Chili	1,044	1,315	1,773
Syria	1,482	1,859	1,687
Fiji	736	1,149	1,575
Morocco	1,182	1,482	1,559
West Germany	1,951	1,550	1,541
Peru	1,677	1,380	1,525
Nicaragua	716	717	1,501
Malaysia	2,424	1,964	1,389
Afghanistan	1,031	992	1,388
Israel	1,296	1,371	1,143
Mexico	1,029	1,203	1,142
Ghana	453	481	1,138
Bangladesh	377	603	1,102
Turkey	608	866	1,045
Iraq	1,123	811	991
South Africa	1,413	999	947
Czechoslovakia	1,156	1,397	834
Hungary	1,031	824	778
Kenya	1,344	1,045	772
Italy	1,204	1,066	770
Ireland	1,308	793	636
The Azores	2,754	2,244	633
Singapore	1,221	821	633
Kampuchea	1,720	721	511
Total	173,272	195,476	207,938

[1] Preliminary data.

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

Table 38. Immigrant Population in Canada by Country of Birth, 1980-1991

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Europe	40,210	44,784	44,356	23,664	20,581	18,530	22,518	36,486	38,598	50,844	50,561	46,542
Great Britain	16,445	18,912	14,525	4,945	4,657	3,998	4,612	7,650	7,476	6,244	6,897	6,361
Portugal	4,222	3,292	2,308	1,373	869	917	1,981	5,904	3,976	5,094	5,405	5,171
France	1,461	1,681	1,821	1,237	970	994	1,124	1,486	1,809	2,128	1,996	2,613
Greece	1,044	924	884	617	578	579	555	750	590	798	604	615
Italy	1,873	2,057	1,496	879	892	733	785	1,123	955	1,204	1,066	770
Poland	1,395	4,093	9,259	5,374	4,640	3,642	5,283	7,132	9,308	16,042	16,536	15,701
Other	13,770	13,825	14,063	9,239	7,975	7,667	11,480	12,441	14,484	19,334	18,057	15,311
Africa	5,383	5,901	5,196	3,913	3,851	3,912	5,189	9,048	9,497	12,483	13,846	16,492
Asia	73,026	50,759	43,863	38,183	42,730	39,438	42,417	69,146	82,334	95,393	113,978	121,949
Philippines	6,147	5,978	5,295	4,597	3,858	3,183	4,203	7,420	8,636	11,907	12,590	12,580
India	9,531	9,415	8,858	7,810	6,082	4,517	7,481	10,635	11,864	10,738	12,572	14,238
Hong Kong (B.C.C.)	3,874	4,039	4,452	4,238	5,013	5,121	4,318	12,618	18,033	15,694	23,134	16,352
China	8,965	9,798	6,295	5,321	5,769	5,166	4,178	6,611	7,784	9,001	14,193	20,544
The Middle East	4,665	5,409	5,321	3,964	4,951	5,239	6,947	10,904	12,325	17,697	23,826	25,533
Other	39,844	16,120	13,642	12,253	17,057	16,212	15,290	20,958	23,692	30,356	27,663	32,702
North America and Central America	9,442	10,183	10,030	10,200	10,223	10,898	12,412	13,691	11,435	11,899	13,042	18,845
United States	8,098	8,695	7,841	6,136	5,727	5,614	6,094	6,547	5,552	5,814	5,067	5,236
The Antilles and Bermuda	7,515	8,797	8,717	7,258	5,696	6,240	8,948	11,210	9,440	10,967	11,784	13,015
Australasia	1,215	1,020	758	394	430	399	449	540	525	634	725	735
South America	5,381	6,114	6,892	4,825	4,046	4,273	6,546	10,833	7,178	8,595	8,602	10,441
Oceania	944	1,024	1,183	720	599	612	740	1,144	1,135	1,186	1,692	2,209
Other	1	36	152		83							
TOTAL	143,117	128,618	121,147	89,157	88,239	84,302	99,219	152,098	160,143	192,001	214,230	230,228

Source: Employment and Immigration Canada, *Immigration Statistics* final data, 1980-1990, preliminary data for 1991, available in July 1992.

Table 39. Percentage Distribution of Immigrants Admitted by Intended Province of Destination, Canada, 1956-1991

Province	Year													
	1956	1961	1971	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Newfoundland	0.3	0.5	0.7	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.3
Prince Edward Island	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Nova Scotia	1.0	1.3	1.5	1.1	1.0	0.9	1.2	1.2	1.1	0.8	0.8	0.8	0.7	0.7
New Brunswick	0.5	1.1	0.9	0.8	0.6	0.6	0.7	0.7	0.7	0.4	0.4	0.5	0.4	0.3
Quebec	19.0	23.6	15.8	16.4	17.6	18.4	16.6	17.7	19.6	17.6	15.9	17.8	19.1	22.4
Ontario	55.0	50.9	52.8	42.7	43.8	44.9	47.1	48.3	50.0	55.8	55.0	54.6	53.0	51.5
Manitoba	3.5	3.5	4.4	4.2	4.1	4.5	4.4	4.1	3.8	3.2	3.1	3.2	3.1	2.4
Saskatchewan	1.3	1.9	1.2	1.9	1.8	2.0	2.4	2.3	1.9	1.4	1.4	1.1	1.1	1.1
Alberta	6.0	6.7	7.1	15.0	14.8	12.0	12.1	10.7	9.8	7.9	8.7	8.4	8.8	7.4
British Columbia	10.8	10.2	15.5	17.1	15.7	16.2	15.0	14.5	12.7	12.4	14.3	13.2	13.4	13.8
Yukon and Northwest Territories	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Unknown	2.4	-	-	0.3	-	-	-	-	-	-	-	-	-	-
Total (in %)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total (in number)	164,857	71,689	121,900	128,618	121,147	89,157	88,239	84,302	99,219	152,098	161,929	192,001	214,230	230,765

Source: Employment and Immigration Canada, *Immigration Statistics*, Catalogue No. WH-5-006.

Immigrants and the Labour Market

As pointed out earlier and on other occasions[24] directly or indirectly, economic interests are at the heart of the migration issue. As an immediate consequence, the job market is affected by the size of flows of arrivals. Table 40 shows summarily the role of immigration in the fluctuation of the labour force. One should guard against trying to measure the repercussions precisely, for several reasons. Among the most significant is that, from the immigrants' perspective, future integration to the labour market is an intention, and being present in the job market depends most importantly on the economic situation. In times of recession, some individuals withdraw from the labour market, and simplistic calculation may easily exaggerate the effects of immigration on the labour force. Therefore, it would be improper to say, based on Table 40, that 18% of the labour force increase in 1985 is due to immigration. However, 1990 is an example of short-term difficulties that can arise in reconciling economy and immigration.

Although immigration from many countries is characterized by male predominance, in some cases, Canada receives more women than men (see Table 41). In many instances, a small difference between male and female populations would be purely accidental, but when the difference is significant, it may be for the reason that one sex is better skilled than the other, or there may be a differential "demand". In the case of female predominance, the traditional current of females as domestics is discernable (the Philippines and the Caribbean).

Table 40. Relation Between the Labour Force and Immigrants Destined for the Work Force (in thousands)

Year	Labour Force[1] as of January 1	Annual Increase	Immigrants Destined for the Labour Force Arriving during the Year
1985	12,532	-	-
1986	12,746	214	38.5
1987	13,011	265	48.2
1988	13,275	264	76.7
1989	13,503	228	98.2
1990	13,681	178	114.1
1991	13,757	76	

[1] Twelve month average.

Source: Statistics Canada, *Historical Labour Force Statistics*, Catalogue No. 71-201. Employment and Immigration Canada, *Immigration Statistics.*

[24] See *Report on the Demographic Situation in Canada, 1991*, second part.

Table 41. Sex Ratio of the Immigrant Population from Selected Countries, Canada, 1991

Country	Immigrant Population		Sex Ratio
	Males	Females	
Poland	8,727	7,852	111.1
Portugal	3,011	2,585	116.5
Egypt	1,267	1,095	115.7
Morocco	748	593	126.0
Ethiopia	1,345	995	135.2
Somalia	758	390	194.4
Sri Lanka	1,598	1,508	105.9
India	5,668	4,956	114.4
Lebanon	6,928	5,534	125.2
Iran	1,989	1,486	133.8
Vietnam	4,845	4,236	114.4
El Salvador	2,315	1,975	117.0
Haiti	1,052	1,303	80.7
Trinidad and Tobago	1,319	1,532	86.1
Philippines	4,884	7,158	68.2
Hong Kong	1,4324	1,4937	95.9
U.S.S.R.	1,154	1,210	95.4

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

INTERNAL MIGRATIONS

It takes a long time to establish final figures on internal migration because until now they have been estimated using two sources not available at the same time: the files of Family Allowance and the income tax report. As a result, provisional data sometimes differ significantly from final estimates. Thus, readers will note in Table 42 that the 1989 data had vastly underestimated the losses in Newfoundland, Quebec, Ontario, Manitoba and Saskatchewan, and at the same time the gains in Alberta and British Columbia.

For 1991, provisional interprovincial migration is estimated at 357,978, a figure slightly lower than in 1990. Periods of recession are generally translated, sometimes with a time-lag, into a slowdown in mobility. This was the case in 1983-1984 and 1985 when total migration fell to 275,000. Obviously, if the economic situation prevalent in the provinces involved affects the interprovincial flows, it should be remembered that there will always be migration motivated by other reasons, often simple proximity.

Table 42. Net Migration for Provinces and Territories, 1970-1991

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon & N.W.T.	Total
1970	−5,950	−29	−3,967	−2,373	−41,156	54,590	−7,707	−28,358	9,898	22,579	2,473	412,559
1971	733	−129	−755	1,798	−25,005	18,580	−7,251	−17,986	2,408	25,034	2,573	405,301
1972	−189	858	2,845	241	−19,891	8,227	−7,735	−17,296	6 538	24 927	1,475	375,185
1973	−2,510	478	2,107	2,841	−14,730	−5,275	−2,200	−13,261	2,698	30,537	−685	433,993
1974	−618	1,386	1,576	4,192	−11,852	−22,163	−5,400	−4,835	14,810	22,655	249	421,336
1975	915	814	4,454	7,572	−12,340	−25,057	−4,134	6,555	23,463	−2,864	622	385,327
1976	−2,732	309	361	1,640	−20,801	−10,508	−3,655	3,819	34,215	−1,490	−1,158	376,971
1977	−4,009	614	−1,277	−886	−46,536	8,596	−3,789	384	32,344	15,507	−948	366,918
1978	−3,540	25	−109	−1,644	−33,424	415	−9,557	−3,701	31,987	20,698	−1,150	348,929
1979	−4,217	−225	−1,840	−2,219	−30,025	−15,317	−13,806	−3,510	39,212	33,241	−1,294	370,862
1980	−3,082	−1,082	−2,494	−4,165	−24,283	−34,919	−11,342	−4,382	46,933	40,165	−1,349	372,167
1981	−6,238	−783	−2,465	−4,766	−22,549	−19,665	−3,621	−520	40,243	21,565	−1,201	380,041
1982	261	−6	1,591	2,183	−28,169	19,614	1,498	1,743	3,961	−2,019	−657	322,634
1983	−1,092	799	3,861	2,296	−19,080	32,825	950	2,501	−26,246	4,029	−843	285,599
1984	−3,585	524	2,963	812	−10,943	36,691	−49	733	−30,591	3,505	−60	273,323
1985	−5,019	−13	−234	−1,559	−6,023	33,414	−1,755	−5,014	−9,568	−3,199	−1,030	281,275
1986	−4,682	−493	−739	−2,897	−3,020	42,916	−3,039	−7,020	−20,293	910	−1,643	302,352
1987	−4,374	301	−2,183	−1,762	−7,410	40,278	−4,751	−9,043	−27,595	17,618	−1,079	318,890
1988	−2,154	424	71	−1,215	−7,003	14,898	−8,584	−16,338	−5,535	25,865	−429	323,685
1989	−2,606	−102	572	−21	−8,379	−1,205	−10,004	−18,589	3,366	37,367	−399	347,990
1990	−3,315	−886	−150	67	−10,014	−12,329	−9,479	−16,163	8,481	44,007	−219	387,037
1991	−1,961	−1,553	987	−2,377	−12,259	−6,604	−7,663	−9,829	7,264	33,447	548	357,978
Total	−59,964	1,231	5,175	−2,242	−414,892	158,002	−123,073	−160,110	187,993	414,084	−6,204	7,850,352

Source: Statistics Canada, Demography Division, Estimates Section.

Table 43. Annual Number of Interprovincial Migrants from Family Allowance Files, January-December 1991

Total Number of Migrants: 357,978

Province of Origin	Province of Destination											
	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.
Newfoundland	–	228	2,175	766	393	6,026	284	117	1,413	1,112	39	175
Prince Edward Island	182	–	1,469	627	159	1,107	116	73	575	393	–	21
Nova Scotia	1,546	681	–	2,959	1,170	8,971	688	413	1,951	2,461	47	256
New Brunswick	617	551	3,818	–	2,588	5,658	560	201	1,358	1,349	58	96
Quebec	376	153	1,348	2,473	–	26,723	761	314	3,138	5,021	21	222
Ontario	6,333	980	8,602	5,297	18,223	–	6,044	2,654	16,921	23,636	183	726
Manitoba	109	82	584	363	876	7,412	–	2,994	6,392	7,290	34	285
Saskatchewan	124	46	356	215	519	2,793	2,991	–	15,250	6,539	171	478
Alberta	910	268	1,735	1,030	1,882	12,136	3,778	9,167	–	30,654	512	1,360
British Columbia	411	130	1,857	693	2,228	11,489	3,279	3,534	21,509	–	1,097	628
Yukon	43	–	30	7	31	178	54	25	401	1,029	–	94
Northwest Territories	98	50	174	47	222	502	203	161	1,788	818	219	–
In	10,767	3,169	22,148	14,477	28,291	82,995	18,758	19,653	70,696	80,302	2,381	4,341
Out	12,728	4,722	21,161	16,854	40,550	89,599	26,421	29,482	63,432	46,855	1,892	4,282
Net Migration	– 1,961	– 1,553	987	– 2,377	– 12,259	– 6,604	– 7,663	– 9,829	7,264	33,447	489	59

Source: Statistics Canada, Demography Division, Estimates Section.

On the whole, the 1991 flows present no unique features compared with those of 1990. In the game of exchanges, almost all eastern and central provinces loose in favour of the two westernmost provinces - Alberta and British Columbia - with a substantial advantage in favour of the latter.

Among the 132 interprovincial/territorial flows, only a few deserve particular attention.

The intensity of Quebec-Ontario exchanges appears to have declined (44,900 migrations instead of 50,100), and the negative balance of Quebec in this relationship has seemingly increased slightly by 1,500 people. Ontario's losses in favour of Alberta and British Columbia, which leave some doubts, were apparently lower in 1991 than in 1990 (16,932 instead of 21,390). Out of 30,000 people who left Saskatchewan, half settled in Alberta and one-fifth in British Columbia (Table 43).

The review which spans 22 years (Table 42) shows that undeniably British Columbia is the province which by far has gained the most (414,084) and that Quebec has incured the most severe deficits (-415,000) although the former's immigration rates are much higher than the latter's emigration rates. With high and low periods, overall, Ontario made only small gains (158,000). This observation seems surprising at first, considering that in the demographic accounts the "attracting" effect of this province had been underlined: Ontario benefits from international migration. It regularly attracts half of all arrivals. Quebec excepted, the provinces chronically losing (Newfoundland, Manitoba, Saskatchewan, and to a lesser extent, the Maritimes) are the less industrialized provinces.

Appendices

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1992 (in thousands)

Year	Population[1]	Total Growth[2]	Rate per 1,000	Births[2]	Deaths[2]	Natural Increase	Rate per 1,000	Net Migration[3]
	Canada							
1972	21,709.6	232.8	10.7	347.3	162.4	184.9	8.5	47.9
1973	21,942.4	292.9	13.3	343.4	164.0	179.4	8.2	113.5
1974	22,235.3	333.4	15.0	350.7	166.8	183.9	8.3	149.5
1975	22,568.7	315.2	14.0	359.3	167.4	191.9	8.5	123.3
1976	22,883.9	274.5	12.0	360.0	167.0	193.0	8.4	81.5
1977	23,158.4	259.0	11.2	361.4	167.5	193.9	8.4	65.1
1978	23,417.4	227.1	9.7	358.9	168.2	190.7	8.1	36.4
1979	23,644.5	267.4	11.3	366.1	168.2	197.9	8.4	69.5
1980	23,911.9	309.4	12.9	370.7	171.5	199.2	8.3	110.2
1981	24,221.3	262.1	10.8	371.3	171.0	200.3	8.3	61.8
1982	24,483.4	222.3	9.1	373.1	174.4	198.7	8.1	23.6
1983	24,705.7	190.1	7.7	373.7	174.5	199.2	8.1	-9.1
1984	24,895.8	194.6	7.8	377.0	175.7	201.3	8.1	-6.7
1985	25,090.4	183.6	7.3	375.7	181.3	194.4	7.7	-10.8
1986	25,274.0	218.9	8.7	372.9	184.2	188.7	7.5	30.2
1987	25,492.9	292.9	11.5	369.7	185.0	184.7	7.2	108.2
1988	25,785.8	311.9	12.1	376.8	190.0	186.8	7.2	125.1
1989	26,097.7	354.4	13.5	392.7	191.0	201.7	7.7	152.7
1990	26,452.1	388.8	14.7	405.5	191.7	213.8	8.1	175.0
1991	26,840.9	402.1	15.0	411.9	196.1	215.8	8.0	186.3
1992	27,243.0							
	Newfoundland							
1972	527.2	7.2	13.7	12.9	3.3	9.5	18.1	-2.3
1973	534.4	5.4	10.1	12.9	3.4	9.5	17.8	-4.1
1974	539.8	6.6	12.2	11.5	3.3	8.2	15.2	-1.6
1975	546.4	8.4	15.4	11.2	3.2	8.0	14.6	0.4
1976	554.8	4.2	7.6	11.5	3.3	8.2	14.7	-4.0
1977	559.0	2.3	4.1	11.1	3.1	8.0	14.3	-5.7
1978	561.3	2.0	3.6	10.5	3.1	7.4	13.1	-5.4
1979	563.3	1.3	2.3	10.2	3.1	7.0	12.5	-5.7
1980	564.6	2.6	4.6	10.3	3.3	7.0	12.4	-4.4
1981	567.2	-1.2	-2.1	10.1	3.2	6.9	12.2	-8.1
1982	566.0	3.9	6.9	9.2	3.4	5.8	10.2	-1.9
1983	569.9	2.0	3.5	8.9	3.5	5.4	9.5	-3.4
1984	571.9	-0.8	-1.4	8.6	3.5	5.0	8.8	-5.8
1985	571.1	-2.4	-4.2	8.5	3.6	4.9	8.7	-7.3
1986	568.7	-1.2	-2.1	8.1	3.5	4.6	8.0	-5.8
1987	567.5	-0.1	-0.2	7.8	3.6	4.1	7.3	-4.2
1988	567.4	1.9	3.3	7.5	3.6	3.9	6.9	-2.0
1989	569.3	2.5	4.4	7.6	3.9	3.7	6.5	-1.2
1990	571.0	0.8	1.4	7.6	3.9	3.7	6.5	-2.9
1991	571.8	2.4	4.2	7.8	3.9	3.9	6.8	-1.5
1992	574.2							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1992 (in thousands) - Continued

Year	Population[1]	Total Growth[2]	Rate per 1,000	Births[2]	Deaths[2]	Natural Increase	Rate per 1,000	Net Migration[3]
	Prince Edward Island							
1972	112.2	1.4	12.5	2.0	1.1	1.0	8.5	0.4
1973	113.6	1.0	8.8	1.9	1.0	0.9	7.6	0.1
1974	114.6	2.0	17.5	1.9	1.1	0.9	7.4	1.1
1975	116.6	1.4	12.0	1.9	1.1	0.9	7.5	0.5
1976	118.0	1.0	8.5	1.9	1.1	0.8	7.2	0.2
1977	119.0	1.5	12.6	2.0	1.0	0.9	7.8	0.6
1978	120.5	1.1	9.1	2.0	1.0	1.0	8.2	0.1
1979	121.6	0.9	7.4	1.9	1.0	0.9	7.5	−0.0
1980	122.5	−0.1	−0.8	2.0	1.0	0.9	7.5	−1.0
1981	122.4	0.1	0.8	1.9	1.0	0.9	7.4	−0.8
1982	122.5	0.7	5.7	1.9	1.0	0.9	7.7	−0.2
1983	123.2	1.4	11.4	1.9	1.1	0.9	7.0	0.5
1984	124.6	1.2	9.6	2.0	1.1	0.8	6.8	0.4
1985	125.8	0.6	4.8	2.0	1.1	0.9	7.1	−0.3
1986	126.4	0.3	2.4	1.9	1.1	0.8	6.4	−0.5
1987	126.7	1.3	10.3	2.0	1.1	0.8	6.6	0.5
1988	128.0	1.4	10.9	2.0	1.1	0.9	7.0	0.5
1989	129.4	0.8	6.2	1.9	1.1	0.8	6.2	-
1990	130.2	0.1	0.8	2.0	1.1	0.9	6.9	−0.8
1991	130.3	−0.5	−3.8	2.1	1.2	0.9	6.9	−1.4
1992	129.8							
	Nova Scotia							
1972	792.9	8.5	10.7	13.5	6.9	6.6	8.4	1.9
1973	801.4	8.0	10.0	13.3	6.9	6.4	7.9	1.6
1974	809.4	7.3	9.0	12.9	6.9	6.0	7.5	1.3
1975	816.7	9.8	12.0	13.1	6.8	6.3	7.7	3.5
1976	826.5	5.7	6.9	13.0	7.0	6.0	7.3	−0.3
1977	832.2	3.6	4.3	12.4	7.0	5.4	6.5	−1.8
1978	835.8	4.4	5.3	12.5	6.9	5.7	6.8	−1.3
1979	840.2	3.5	4.2	12.4	6.8	5.6	6.6	−2.1
1980	843.7	3.2	3.8	12.4	7.0	5.4	6.4	−2.2
1981	846.9	2.1	2.5	12.1	7.0	5.1	6.0	−3.0
1982	849.0	5.6	6.6	12.3	6.9	5.4	6.3	0.2
1983	854.6	7.4	8.7	12.4	7.0	5.4	6.3	2.0
1984	862.0	6.9	8.0	12.4	6.9	5.5	6.3	1.4
1985	868.9	3.3	3.8	12.5	7.3	5.1	5.9	−1.8
1986	872.2	4.1	4.7	12.4	7.3	5.1	5.9	−1.0
1987	876.3	3.5	4.0	12.1	7.1	5.0	5.7	−1.5
1988	879.8	5.8	6.6	12.2	7.4	4.8	5.5	1.0
1989	885.6	6.6	7.4	12.5	7.5	5.0	6.3	1.6
1990	892.2	6.5	7.3	12.9	7.4	5.5	6.1	1.0
1991	898.7	7.4	8.2	13.0	7.6	5.4	6.0	2.0
1992	906.1							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1992 (in thousands) - Continued

Year	Population[1]	Total Growth[2]	Rate per 1,000	Births[2]	Deaths[2]	Natural Increase	Rate per 1,000	Net Migration[3]
	New Brunswick							
1972	638.2	5.3	8.3	11.8	5.0	6.8	10.7	-1.5
1973	643.5	7.7	12.0	11.4	5.1	6.3	9.9	1.4
1974	651.2	9.5	14.6	11.4	5.2	6.2	9.6	3.3
1975	660.7	13.1	19.8	11.8	5.1	6.7	10.1	6.4
1976	673.8	7.9	11.7	12.1	5.2	6.9	10.2	1.0
1977	681.7	5.2	7.6	11.5	5.2	6.3	9.3	-1.1
1978	686.9	3.3	4.8	10.8	5.2	5.6	8.2	-2.3
1979	690.2	3.7	5.4	10.8	5.2	5.7	8.2	-2.0
1980	693.9	1.8	2.6	10.6	5.3	5.3	7.7	-3.5
1981	695.7	-0.4	-0.6	10.5	5.1	5.4	7.7	-5.8
1982	695.3	5.2	7.5	10.5	5.2	5.3	7.6	-0.1
1983	700.5	5.3	7.6	10.5	5.2	5.3	7.6	-0.0
1984	705.8	3.7	5.2	10.4	5.3	5.1	7.2	-1.4
1985	709.5	1.0	1.4	10.1	5.2	4.9	6.9	-3.9
1986	710.5	0.3	0.4	9.8	5.5	4.3	6.1	-4.0
1987	710.8	2.3	3.2	9.6	5.4	4.2	5.9	-1.9
1988	713.1	2.9	4.1	9.6	5.5	4.1	5.7	-1.2
1989	716.0	4.3	6.0	9.7	5.5	4.2	5.8	0.1
1990	720.3	4.5	6.2	9.8	5.4	4.4	6.1	0.1
1991	724.8	1.9	2.6	9.9	5.6	4.3	5.9	-2.4
1992	726.7							
	Quebec							
1972	6,039.7	24.7	4.1	83.6	42.3	41.3	6.8	-16.6
1973	6,064.4	38.7	6.4	84.1	42.7	41.4	6.8	-2.7
1974	6,103.1	52.5	8.6	85.6	42.8	42.8	7.0	9.7
1975	6,155.6	55.9	9.1	93.0	42.8	50.2	8.2	5.7
1976	6,211.5	51.5	8.3	93.0	42.6	50.4	8.1	1.1
1977	6,263.0	22.6	3.6	95.7	43.5	52.2	8.3	-29.6
1978	6,285.6	30.6	4.9	96.2	43.6	52.6	8.4	-22.0
1979	6,316.2	43.7	6.9	98.6	43.3	55.3	8.8	-11.6
1980	6,359.9	53.0	8.3	97.4	43.5	53.9	8.5	-0.9
1981	6,412.9	37.4	5.8	95.3	42.7	52.6	8.2	-15.2
1982	6,450.3	14.8	2.3	90.8	43.5	47.3	7.3	-32.5
1983	6,465.1	15.4	2.4	88.2	44.3	43.9	6.8	-28.5
1984	6,480.5	22.0	3.4	87.8	44.4	43.4	6.7	-21.4
1985	6,502.5	25.5	3.9	86.3	45.7	40.6	6.2	-15.1
1986	6,528.0	40.4	6.2	84.6	46.9	37.7	5.8	2.7
1987	6,568.4	50.4	7.7	83.8	47.6	36.2	5.5	14.2
1988	6,618.8	53.2	8.0	86.6	47.8	38.8	5.9	14.4
1989	6,672.0	65.1	9.7	92.4	48.3	44.1	6.6	21.0
1990	6,737.1	75.7	11.2	98.1	48.4	49.7	7.3	26.0
1991	6,812.8	82.6	12.2	100.2	48.8	51.4	7.5	31.2
1992	6,895.4							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1992 (in thousands) – Continued

Year	Population[1]	Total Growth[2]	Rate per 1,000	Births[2]	Deaths[2]	Natural Increase	Rate per 1,000	Net Migration[3]
	Ontario							
1972	7,769.3	100.8	13.0	125.1	58.9	66.2	8.5	34.6
1973	7,870.1	126.3	16.0	123.8	59.9	63.9	8.1	62.4
1974	7,996.4	128.5	16.1	124.2	60.6	63.7	8.0	64.8
1975	8,124.9	103.9	12.8	125.7	60.5	65.2	8.0	38.7
1976	8,228.8	85.8	10.4	122.5	61.2	61.3	7.4	24.5
1977	8,314.6	93.3	11.2	122.8	61.4	61.3	7.4	32.0
1978	8,407.9	67.5	8.0	121.0	61.1	59.8	7.1	7.7
1979	8,475.4	64.4	7.6	121.7	61.5	60.2	7.1	4.2
1980	8,539.8	59.9	7.0	123.3	62.7	60.6	7.1	–0.7
1981	8,599.7	64.1	7.5	122.2	62.8	59.3	6.9	4.8
1982	8,663.8	97.4	11.2	124.9	63.7	61.2	7.1	36.2
1983	8,761.2	98.6	11.3	126.8	64.5	62.3	7.1	36.3
1984	8,859.8	109.4	12.3	131.3	64.7	66.6	7.5	42.8
1985	8,969.2	103.0	11.5	132.2	66.7	65.5	7.3	37.5
1986	9,072.2	129.0	14.2	133.9	67.9	66.0	7.3	63.0
1987	9,201.2	170.2	18.5	134.6	68.1	66.5	7.2	103.7
1988	9,371.4	153.4	16.4	138.1	70.7	67.4	7.2	86.0
1989	9,524.8	158.9	16.5	145.3	70.9	74.4	7.7	84.5
1990	9,683.7	162.4	16.8	150.9	70.6	80.3	8.3	82.1
1991	9,846.1	192.8	17.6	153.8	72.9	80.9	8.2	91.9
1992	10,018.9							
	Manitoba							
1972	989.0	3.3	3.3	17.4	8.2	9.2	9.3	–5.9
1973	992.3	9.8	9.9	17.0	8.2	8.8	8.8	1.0
1974	1,002.1	7.7	7.7	17.3	8.4	8.9	8.9	–1.2
1975	1,009.8	8.4	8.3	17.1	8.4	8.8	8.7	–0.4
1976	1,018.2	6.2	6.1	17.0	8.3	8.7	8.6	–2.5
1977	1,024.4	5.8	5.7	16.7	8.2	8.5	8.3	–2.7
1978	1,030.2	–2.4	–2.3	16.4	8.3	8.1	7.9	–10.5
1979	1,027.8	–4.8	–4.7	16.2	8.2	8.0	7.8	–12.8
1980	1,023.0	0.4	0.4	16.0	8.4	7.6	7.4	–7.2
1981	1,023.4	6.0	5.9	16.1	8.6	7.4	7.3	–1.4
1982	1,029.4	11.4	11.1	16.1	8.5	7.6	7.4	3.8
1983	1,040.8	10.1	9.7	16.6	8.5	8.1	7.8	2.0
1984	1,050.9	9.7	9.2	16.7	8.3	8.4	8.0	1.3
1985	1,060.6	7.4	7.0	17.1	8.8	8.3	7.9	–0.9
1986	1,068.0	6.6	6.2	17.0	8.9	8.1	7.6	–1.5
1987	1,074.6	6.5	6.0	17.0	8.7	8.2	7.7	–1.7
1988	1,081.1	2.6	2.4	17.0	9.1	7.9	7.3	–5.3
1989	1,083.7	2.5	2.3	17.3	8.8	8.5	8.1	–6.0
1990	1,086.2	3.6	3.3	17.4	8.9	8.5	7.8	–4.9
1991	1,089.8	4.4	4.0	17.4	9.0	8.4	7.7	–4.0
1992	1,094.2							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1992 (in thousands) - Continued

Year	Popula-lation[1]	Total Growth[2]	Rate per 1,000	Births[2]	Deaths[2]	Natural Increase	Rate per 1,000	Net Migration[3]
	Saskatchewan							
1972	917.1	-10.5	-11.4	15.5	7.6	7.9	8.6	-18.4
1973	906.6	-6.7	-7.4	14.8	7.6	7.2	7.9	-13.9
1974	899.9	2.4	2.7	15.1	7.8	7.3	8.1	-4.9
1975	902.3	14.4	16.0	15.3	7.7	7.6	8.4	6.8
1976	916.7	12.9	14.1	15.8	7.7	8.1	8.8	4.8
1977	929.6	11.1	11.9	16.5	7.6	9.0	9.6	2.1
1978	940.7	6.3	6.7	16.6	7.7	8.8	9.4	-2.5
1979	947.0	8.5	9.0	16.9	7.4	9.6	10.1	-1.1
1980	955.5	8.6	9.0	17.1	7.7	9.4	9.8	-0.8
1981	964.1	9.8	10.2	17.2	7.5	9.7	10.0	0.1
1982	973.9	10.5	10.8	17.7	8.2	9.5	9.8	1.0
1983	984.4	11.4	11.6	17.8	7.6	10.2	10.4	1.2
1984	995.8	10.2	10.2	18.0	7.7	10.3	10.3	-0.1
1985	1,006.0	3.8	3.8	18.2	8.0	10.1	10.1	-6.3
1986	1,009.8	2.7	2.7	17.5	8.1	9.5	9.4	-6.8
1987	1,012.5	1.4	1.4	17.0	7.8	9.2	9.1	-7.8
1988	1,013.9	-6.2	-6.1	16.8	8.1	8.7	8.6	-14.9
1989	1,007.7	-8.6	-8.6	16.7	7.9	8.8	8.7	-17.4
1990	999.1	-6.6	-6.6	16.1	8.0	8.1	8.1	-14.7
1991	992.5	-0.2	-0.2	16.2	8.2	8.0	8.1	-8.3
1992	992.3							
	Alberta							
1972	1,644.7	32.3	19.6	29.3	10.7	18.6	11.3	13.7
1973	1,677.0	32.1	19.1	29.3	10.8	18.5	11.0	13.6
1974	1,709.1	46.6	27.3	29.8	11.3	18.6	10.9	28.0
1975	1,755.7	58.7	33.4	31.6	11.4	20.2	11.5	38.5
1976	1,814.4	70.6	38.9	32.9	11.6	21.3	11.7	49.3
1977	1,885.0	70.9	37.6	34.4	11.6	22.8	12.1	48.1
1978	1,955.9	68.5	35.0	35.4	11.9	23.5	12.0	45.0
1979	2,024.4	81.2	40.1	37.0	12.1	24.9	12.3	56.3
1980	2,105.6	98.0	46.5	39.7	12.7	27.0	12.8	71.0
1981	2,203.6	85.3	38.7	42.6	12.8	29.8	13.5	55.5
1982	2,288.9	42.8	18.7	45.0	13.0	32.1	14.0	10.7
1983	2,331.7	6.3	2.7	45.6	12.6	33.0	14.1	-26.7
1984	2,338.0	1.2	0.5	44.1	12.7	31.4	13.4	-30.2
1985	2,339.2	19.9	8.5	43.8	13.2	30.6	13.1	-10.7
1986	2,359.1	11.4	4.8	43.7	13.6	30.2	12.8	-18.8
1987	2,370.5	6.5	2.7	42.1	13.3	28.8	12.1	-22.3
1988	2,377.0	31.0	13.0	42.1	13.9	28.2	11.9	2.8
1989	2,408.0	43.5	17.9	43.4	13.9	29.5	12.1	14.0
1990	2,451.5	50.7	20.7	43.0	14.1	28.9	11.8	21.8
1991	2,502.2	47.0	18.9	43.3	14.5	28.8	11.5	18.5
1992	2,549.5							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1992 (in thousands) - Continued

Year	Population[1]	Total Growth[2]	Rate per 1,000	Births[2]	Deaths[2]	Natural Increase	Rate per 1,000	Net Migration[3]
	British Columbia							
1972	2,223.6	56.6	25.5	34.6	18.0	16.5	7.4	40.1
1973	2,280.2	69.6	30.5	34.4	18.1	16.3	7.1	53.3
1974	2,349.8	68.5	29.2	35.5	19.2	16.3	6.9	52.2
1975	2,418.3	38.8	16.0	36.3	19.1	17.2	7.1	21.6
1976	2,457.1	28.4	11.6	35.9	18.9	17.0	6.9	11.4
1977	2,485.5	41.6	16.7	36.0	18.6	17.4	7.0	24.2
1978	2,527.1	45.0	17.8	37.2	19.1	18.2	7.2	26.8
1979	2,572.1	64.3	25.0	38.4	19.2	19.2	7.5	45.1
1980	2,636.4	81.3	30.8	40.1	19.4	20.7	7.9	60.6
1981	2,717.7	56.4	20.8	41.5	19.9	21.6	8.0	34.8
1982	2,774.1	28.6	10.3	42.7	20.7	22.0	7.9	6.6
1983	2,802.7	31.1	11.1	42.9	19.8	23.1	8.2	8.0
1984	2,833.8	29.2	10.3	43.9	20.7	23.2	8.2	6.0
1985	2,863.0	20.4	7.1	43.1	21.3	21.8	7.6	−1.4
1986	2,883.4	25.3	8.8	42.0	21.2	20.8	7.2	4.5
1987	2,908.7	50.2	17.3	41.8	21.8	20.0	6.9	30.2
1988	2,958.9	64.6	21.8	42.9	22.5	20.4	6.9	44.2
1989	3,023.5	78.0	25.5	43.8	23.0	20.8	6.8	57.2
1990	3,101.7	89.6	28.5	45.6	23.6	22.0	7.0	67.6
1991	3,191.3	81.7	25.3	46.2	24.0	22.2	6.9	59.5
1992	3,273.0							
	Yukon							
1972	19.2	1.0	52.1	0.5	0.1	0.3	18.1	0.7
1973	20.2	0.3	14.9	0.4	0.1	0.3	15.3	−0.0
1974	20.5	0.6	29.3	0.5	0.1	0.4	18.6	0.2
1975	21.1	0.7	33.2	0.4	0.1	0.3	14.0	0.4
1976	21.8	0.1	4.6	0.4	0.1	0.3	14.9	−0.2
1977	21.9	0.5	22.8	0.4	0.1	0.3	15.0	0.2
1978	22.4	0.2	8.9	0.4	0.1	0.4	16.0	−0.2
1979	22.6	0.0	0.0	0.4	0.1	0.3	12.1	−0.3
1980	22.6	0.1	4.4	0.5	0.1	0.3	15.4	−0.2
1981	22.7	0.9	39.6	0.5	0.1	0.4	17.4	0.5
1982	23.6	−0.6	−25.4	0.5	0.1	0.4	17.2	−1.0
1983	23.0	−0.1	−4.3	0.5	0.1	0.4	18.6	−0.5
1984	22.9	0.5	21.8	0.5	0.1	0.4	17.9	0.1
1985	23.4	0.1	4.3	0.5	0.1	0.3	14.6	−0.2
1986	23.5	0.7	29.8	0.5	0.1	0.4	15.7	0.3
1987	24.2	0.5	20.7	0.5	0.1	0.4	15.3	0.1
1988	24.7	0.7	28.3	0.5	0.1	0.4	16.2	0.3
1989	25.4	0.5	19.5	0.5	0.1	0.4	15.6	0.1
1990	25.9	0.6	23.2	0.6	0.1	0.5	19.3	0.1
1991	26.5	0.9	34.0	0.6	0.1	0.5	18.9	0.4
1992	27.4							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1992 (in thousands) - Concluded

Year	Population[1]	Total Growth[2]	Rate per 1,000	Births[2]	Deaths[2]	Natural Increase	Rate per 1,000	Net Migration[3]
	Northwest Territories							
1972	36.5	2.2	60.3	1.2	0.3	1.0	26.5	1.2
1973	38.7	0.7	18.1	1.2	0.2	1.0	24.7	-0.3
1974	39.4	1.2	30.5	1.0	0.2	0.8	21.2	0.4
1975	40.6	1.7	41.9	1.2	0.2	1.0	23.6	0.7
1976	42.3	0.4	9.5	1.2	0.2	1.0	23.0	-0.6
1977	42.7	0.4	9.4	1.2	0.2	1.0	23.2	-0.6
1978	43.1	0.5	11.6	1.2	0.2	1.0	23.2	-0.5
1979	43.6	0.7	16.1	1.3	0.2	1.1	24.7	-0.4
1980	44.3	0.7	15.8	1.3	0.2	1.1	24.0	-0.4
1981	45.0	1.6	35.6	1.3	0.2	1.1	24.6	0.5
1982	46.6	1.9	40.8	1.4	0.2	1.1	24.2	0.8
1983	48.5	1.3	26.8	1.5	0.2	1.3	25.8	0.0
1984	49.8	1.5	30.1	1.4	0.2	1.2	24.2	0.3
1985	51.3	0.8	15.6	1.4	0.2	1.2	23.8	-0.4
1986	52.1	-0.5	-9.6	1.5	0.2	1.3	24.4	-1.8
1987	51.6	0.2	3.9	1.5	0.2	1.3	25.7	-1.1
1988	51.8	0.6	11.6	1.6	0.2	1.4	27.0	-0.8
1989	52.4	0.8	15.3	1.5	0.2	1.3	24.8	-0.5
1990	53.2	1.0	18.8	1.6	0.2	1.4	26.3	-0.4
1991	54.2	1.4	25.8	1.6	0.2	1.4	25.8	-
1992	55.6							

[1] As of January 1, data are taken from final intercensal estimates 1971-86. Data for 1987-1990 are taken from final postcensal estimates. The data for 1991 are updated, and the data for 1992 are preliminary, dated April 24, 1992.

[2] From January 1 to December 31, 1971 to 1990 final data has been used. For 1991 preliminary data updated to March 1992 has been used.

[3] Difference between total growth and natural increase.

Note: Calculations are based on unrounded data.

Source: Statistics Canada.

Table A2. Age-specific First Marriage Rates (per 1,000) for Male Cohorts, Canada, 1943-1973

Age	Year of Birth																														
	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943
	Year of 17th Birthday																														
	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960
	Males																														
17	0.5	0.4	0.5	0.6	0.6	0.6	0.6	0.7	0.9	1.2	1.7	1.6	2.0	2.5	3.3	3.9	4.5	4.9	4.7	4.3	4.3	4.0	3.8	3.9	3.9	3.9	4.0	3.8	4.0	4.4	4.9
18		2.9	2.7	2.8	2.9	3.4	3.7	4.0	4.5	6.1	6.8	8.6	9.6	11.1	13.0	15.0	18.3	19.7	20.6	21.9	18.9	17.9	17.2	16.9	17.8	18.1	18.3	15.9	15.3	17.1	18.0
19			7.5	7.7	8.3	8.6	9.6	10.2	11.3	13.4	16.7	19.9	22.7	25.3	28.7	32.4	36.6	41.3	44.7	48.0	48.7	44.2	41.7	39.8	41.0	44.2	44.6	39.2	37.7	38.1	43.1
20				15.8	17.2	17.7	18.1	21.1	22.1	24.8	29.4	35.4	40.7	44.9	49.7	53.4	58.8	62.0	71.3	77.6	81.7	83.6	77.3	73.6	73.4	77.4	82.8	73.3	70.6	71.7	73.7
21					27.8	30.5	30.6	31.8	35.3	38.2	42.4	48.3	55.2	61.8	68.1	71.6	75.0	79.4	82.9	96.9	100.2	109.5	116.5	116.5	114.0	120.1	127.6	118.1	112.9	114.0	116.8
22						40.4	43.3	44.6	45.7	50.6	53.1	57.8	62.4	70.0	74.3	80.5	82.4	83.2	86.3	92.3	102.6	110.4	118.5	127.1	125.3	130.3	140.0	128.6	128.2	130.6	130.6
23							53.9	55.0	56.8	58.9	61.5	64.4	67.4	68.6	74.6	77.7	81.3	80.4	81.6	84.7	87.5	96.4	101.0	110.2	118.3	116.1	130.7	121.1	119.6	128.1	131.3
24								61.7	63.8	64.0	63.8	65.5	67.0	68.2	69.6	70.4	72.1	73.5	72.6	72.5	73.7	75.2	82.4	87.3	92.5	97.5	97.3	98.3	98.5	106.0	111.0
25									65.3	67.3	64.6	62.7	62.0	62.8	63.9	61.2	62.4	63.8	63.2	62.1	61.4	62.5	61.9	67.0	68.9	72.7	75.3	78.1	75.2	80.8	84.8
26										60.8	61.7	59.2	53.9	53.8	55.5	52.8	52.7	53.5	52.2	50.9	50.2	48.8	49.8	48.7	51.4	52.6	55.5	58.5	56.2	59.7	62.0
27											54.5	52.9	50.7	48.1	45.9	46.4	45.0	42.7	42.5	42.4	41.5	40.4	39.0	38.9	38.2	39.8	40.7	42.4	42.3	42.1	44.9
28												46.4	45.2	42.2	39.2	36.8	37.8	36.2	35.2	34.4	33.6	32.9	31.8	31.5	31.3	29.7	30.7	31.1	31.3	31.2	33.5
29													38.8	37.3	35.4	32.9	30.6	31.4	29.8	29.1	27.5	27.4	26.4	25.0	23.7	23.6	23.2	24.1	23.3	23.9	25.9
30														31.7	30.5	28.5	26.6	25.1	24.4	23.6	23.0	21.8	21.0	20.6	19.5	18.9	18.3	18.3	18.5	18.6	18.9
31															25.2	24.0	22.5	21.3	18.6	19.2	18.7	18.0	16.8	16.1	15.7	14.7	14.3	14.6	14.2	14.1	14.5
32																19.9	19.5	18.6	16.7	15.3	15.5	15.2	13.4	13.3	12.4	12.0	11.3	11.3	11.2	11.3	11.3
33																	16.1	15.2	14.7	13.6	12.2	12.1	11.6	11.2	10.3	9.8	9.4	9.3	8.7	9.2	8.7
34																		13.3	12.7	12.3	10.7	9.7	9.7	9.0	8.8	8.0	7.9	7.6	7.3	7.1	7.2
35																			10.6	10.3	10.1	9.0	7.8	7.8	7.6	6.9	6.5	6.3	6.3	6.1	6.0
36																				8.4	8.4	7.7	7.4	6.7	6.3	5.9	5.6	5.7	5.2	4.6	5.0
37																					6.9	7.0	6.4	5.6	5.1	4.7	4.5	4.6	4.0	4.3	4.2
38																						5.5	5.4	5.3	4.8	4.0	3.5	3.7	3.5	3.4	3.4
39																							4.2	4.5	4.5	3.8	3.8	3.4	3.3	2.9	2.8
40																								3.5	3.7	3.5	3.4	3.1	2.5	2.8	2.4
41																									2.5	3.1	2.9	2.8	2.6	2.1	2.2
42																										2.4	2.5	2.3	2.4	2.1	2.0
43																											2.0	2.0	2.2	2.0	1.9
44																												1.5	2.0	2.0	1.9
45																													1.2	1.6	1.6

Source: Statistics Canada, calculations by the author from population estimates, and marriage data published by the Canadian Centre for Health Information.

Table A3. Age-specific First Marriage Rates (per 1,000) for Female Cohorts, Canada, 1943-1975

Age	Year of Birth																																		
	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943
	Year of 15th Birthday																																		
	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958
	Females																																		
15	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.5	0.5	0.5	0.5	0.5	1.1	1.8	2.2	2.5	2.8	3.5	3.5	3.4	3.5	3.5	3.2	3.3	3.4	3.4	4.1	4.2	5.4	5.0	5.4	5.8	6.2
16		1.7	1.9	2.0	2.2	2.5	3.1	3.6	3.9	4.6	5.0	5.9	6.6	7.8	9.2	11.4	13.9	15.8	17.4	18.6	17.6	17.7	16.7	15.7	16.5	16.8	17.6	19.5	21.6	21.6	22.4	25.7	26.7
17			4.9	4.7	4.9	5.6	6.2	7.6	8.5	9.6	11.1	12.8	15.3	17.2	19.7	23.7	27.4	33.0	36.1	39.9	41.8	40.1	40.6	38.6	39.7	40.8	41.0	44.8	48.7	45.4	48.5	53.5	56.8
18				15.9	16.9	17.1	18.6	22.3	24.7	25.8	29.8	34.6	39.1	45.4	49.8	54.6	61.6	68.1	77.6	82.3	87.0	92.3	85.2	82.7	82.0	81.7	84.5	88.0	93.6	87.2	86.2	94.3	101.6
19					27.9	30.6	32.7	33.8	39.3	41.1	44.4	49.8	56.8	64.2	70.5	74.5	79.6	85.3	91.3	101.4	106.5	115.8	119.7	113.2	108.7	108.6	110.3	116.5	123.1	109.4	106.7	112.7	122.0
20						43.2	47.7	48.2	50.4	53.6	58.1	61.6	67.1	76.0	81.4	87.4	90.0	92.4	96.2	97.2	108.7	116.2	123.3	130.3	126.8	121.5	126.1	132.8	141.3	124.7	118.5	124.9	125.7
21							57.6	61.0	62.9	63.5	65.6	69.7	74.3	75.6	81.8	84.7	89.3	89.5	90.8	90.4	91.1	102.5	109.0	117.5	125.7	128.8	126.7	134.6	143.0	132.1	122.9	124.5	127.3
22								67.7	69.4	70.3	68.8	72.1	73.1	74.1	74.3	76.7	80.0	79.0	79.4	76.5	77.5	79.1	86.2	89.9	95.4	100.7	101.3	105.8	115.9	105.1	100.7	103.0	104.4
23									71.3	71.8	71.4	69.7	67.6	69.5	68.4	67.1	68.4	67.5	66.5	64.8	62.0	63.2	61.6	66.5	68.2	71.0	74.0	73.4	83.0	76.3	74.1	78.2	78.0
24										69.6	70.6	66.8	62.9	60.3	59.6	58.2	56.2	55.7	53.0	52.9	49.9	48.1	47.7	46.8	50.4	50.6	51.0	51.8	49.9	53.4	50.6	53.6	55.9
25											62.6	61.4	58.4	53.9	49.9	49.8	47.4	44.5	43.3	42.2	40.8	38.4	37.0	36.5	35.7	36.9	36.5	36.3	36.5	38.2	37.7	38.1	39.2
26												52.4	50.0	46.7	41.3	39.7	39.9	37.4	35.4	33.7	31.6	30.2	29.3	27.8	28.2	27.2	27.2	26.1	25.7	27.7	25.7	27.9	28.2
27													42.8	38.6	37.2	33.5	30.7	30.2	29.1	27.0	25.9	24.5	24.3	22.2	21.6	21.0	20.3	20.0	18.8	20.1	18.9	19.9	21.0
28														33.4	31.7	28.9	26.3	22.9	23.4	22.8	20.8	19.7	18.6	18.0	16.9	16.3	15.6	14.9	15.1	15.7	14.8	15.5	14.9
29															26.6	24.7	23.2	20.5	17.8	18.5	17.3	16.3	15.7	14.8	13.9	12.9	12.4	12.0	11.1	11.9	11.7	11.4	11.6
30																20.8	19.8	17.5	15.9	14.3	14.5	14.0	12.5	12.0	11.4	10.8	9.9	9.4	9.3	9.4	9.5	8.9	9.2
31																	16.0	14.7	13.7	11.9	10.7	10.8	10.6	9.7	9.0	8.6	7.8	7.5	6.9	7.4	7.5	7.3	7.3
32																		12.7	11.7	10.6	9.4	8.1	8.4	8.0	7.6	7.2	6.5	6.2	5.9	6.1	5.9	5.9	5.9
33																			9.6	9.1	8.4	7.5	6.7	6.8	6.5	5.9	5.5	5.5	5.0	4.9	4.7	4.7	5.2
34																				7.7	7.2	5.4	5.9	5.6	5.4	5.2	4.6	4.4	4.1	4.0	4.0	4.1	4.1
35																					6.3	5.9	5.6	5.2	4.3	4.2	4.0	3.6	3.3	3.6	3.3	3.4	3.3
36																						5.0	4.7	4.6	3.9	3.5	3.3	2.9	3.0	3.1	2.5	2.7	2.7
37																							4.0	3.8	3.6	3.2	2.6	2.5	2.2	2.4	2.2	2.3	2.0
38																								2.9	3.2	2.8	2.5	2.3	2.3	2.3	2.0	2.1	2.0
39																									2.7	2.6	2.2	2.1	1.9	2.0	1.8	1.7	1.4
40																										2.1	2.1	2.0	1.7	1.7	1.5	1.3	1.3
41																											1.6	1.6	1.6	1.3	1.3	1.3	1.1
42																												1.5	1.4	1.3	1.3	1.1	1.2
43																													1.2	1.3	1.2	1.3	1.1
44																														1.1	1.0	0.9	0.9
45																															0.8	0.9	1.0

Source: See table 17.

Table A4. Canadian Population as of January 1, 1990 and 1991, by Age and Sex
(in thousands)

Age	1990		1991	
	Males	Females	Males	Females
0	199.4	190.3	205.6	195.6
1	193.0	184.0	201.9	192.3
2	190.3	181.8	194.1	185.1
3	190.5	181.9	191.5	182.9
4	189.7	180.1	191.8	183.1
5	189.4	179.7	191.1	181.4
6	188.9	180.0	190.9	181.0
7	189.0	179.9	190.3	181.3
8	189.4	180.5	190.4	181.2
9	190.5	181.2	190.8	181.8
10	189.1	179.4	192.0	182.5
11	185.7	176.2	190.4	180.6
12	185.4	176.1	186.9	177.4
13	186.8	177.5	186.6	177.2
14	187.2	177.7	188.1	178.7
15	185.2	176.3	188.4	178.7
16	183.6	174.8	186.3	177.3
17	188.6	178.6	184.7	175.9
18	196.5	186.4	189.7	179.7
19	203.3	193.3	197.7	187.7
20	201.1	190.7	204.6	194.8
21	197.9	189.5	202.5	192.4
22	199.1	193.1	199.6	191.3
23	206.9	202.3	200.9	195.2
24	220.1	216.9	208.9	204.5
25	232.6	230.6	222.5	219.4
26	238.0	237.3	235.3	233.2
27	239.2	240.1	240.9	240.0
28	240.0	241.4	241.9	242.7
29	242.2	243.6	242.5	243.9
30	239.2	241.6	244.6	246.0
31	236.9	240.1	241.5	243.8
32	236.3	239.7	239.1	242.2
33	232.5	236.0	238.4	241.7
34	228.8	232.3	234.4	238.0
35	225.9	230.5	230.6	234.1
36	218.9	223.8	227.4	232.1
37	212.2	216.0	220.2	225.2
38	207.7	210.1	213.4	217.3
39	205.2	206.8	208.7	211.2
40	202.4	204.1	206.1	207.8
41	201.8	203.6	203.1	205.0
42	203.6	204.4	202.3	204.3
43	192.7	192.9	204.1	205.0
44	171.4	170.6	193.1	193.3
45	164.7	163.4	171.6	170.9
46	161.2	160.4	164.8	163.6

Table A4. Canadian Population as of January 1, 1990 and 1991, by Age and Sex
(in thousands) - Concluded

Age	1990		1991	
	Males	Females	Males	Females
47	153.7	153.2	161.2	160.6
48	144.7	144.3	153.7	153.3
49	138.3	138.7	144.6	144.4
50	132.7	132.9	138.2	138.8
51	128.8	128.7	132.4	133.0
52	124.5	124.9	128.5	128.8
53	123.0	123.9	124.1	125.0
54	121.9	123.3	122.5	124.0
55	118.9	120.4	121.3	123.3
56	119.6	120.8	118.3	120.4
57	121.8	123.2	118.8	120.7
58	121.0	123.2	120.9	123.0
59	119.7	123.5	120.0	123.0
60	116.1	121.2	118.6	123.3
61	112.4	119.1	114.9	120.9
62	110.6	119.1	111.1	118.8
63	107.7	118.6	109.2	118.6
64	105.0	118.7	106.0	118.0
65	101.4	116.9	103.1	117.9
66	97.4	114.6	99.4	116.0
67	94.7	113.2	95.3	113.5
68	92.0	111.8	92.4	111.9
69	86.6	107.0	89.6	110.4
70	78.0	98.1	84.1	105.6
71	68.6	88.1	75.6	96.6
72	65.4	85.1	66.0	86.5
73	62.9	83.5	62.7	83.4
74	61.2	82.2	60.0	81.6
75	58.4	80.1	58.2	80.1
76	53.4	75.0	55.4	77.9
77	48.0	69.1	50.3	72.6
78	42.7	63.8	45.0	66.7
79	38.5	59.1	39.7	61.3
80	34.2	53.8	35.5	56.5
81	29.8	49.3	31.3	51.2
82	26.0	44.7	27.1	46.6
83	22.3	40.2	23.4	41.9
84	19.1	36.2	19.9	37.4
85	16.3	31.9	16.8	33.4
85	13.9	27.8	14.3	29.2
87	11.5	23.7	12.0	25.2
88	9.2	20.4	9.8	21.3
89	7.2	17.5	7.8	18.1
90 +	21.5	63.0	22.4	66.3
Total	13,041.1	13,411.1	13,233.5	13,607.4

Source: Statistics Canada, Demography Division, Estimates Section.
1990: Final postcensal estimates.
1991: Postcensal estimates updated to March 1992.

Table A5. Nuptiality

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	Number of Marriages												
1978	3,841	939	6,560	5,310	45,936	67,491	8,232	7,139	18,277	21,388	194	216	185,523
1979	3,737	893	6,920	5,355	46,341	67,980	7,769	7,272	18,999	22,087	181	277	187,811
1980	3,783	939	6,791	5,321	44,848	68,840	7,869	7,561	20,818	23,830	200	269	191,069
1981	3,758	849	6,632	5,108	41,005	70,281	8,123	7,329	21,781	24,699	235	282	190,082
1982	3,764	855	6,486	4,923	38,354	71,595	8,264	7,491	23,312	23,831	225	260	188,360
1983	3,778	937	6,505	5,260	36,144	70,893	8,261	7,504	21,172	23,692	243	286	184,675
1984	3,567	1,057	6,798	5,294	37,433	71,922	8,393	7,213	20,052	23,397	212	259	185,597
1985	3,220	956	6,807	5,312	37,026	72,891	8,296	7,132	19,750	22,292	185	229	184,096
1986	3,421	970	6,445	4,962	33,083	70,839	7,816	6,820	18,896	21,826	183	257	175,518
1987	3,481	924	6,697	4,924	32,616	76,201	7,994	6,853	18,640	23,395	189	237	182,151
1988	3,686	965	6,894	5,292	33,519	78,533	7,908	6,767	19,272	24,461	209	222	187,728
1989	3,905	1,019	6,828	5,254	33,325	80,377	7,800	6,637	19,888	25,170	214	223	190,640
1990	3,791	996	6,386	5,044	32,060	80,097	7,666	6,229	19,806	25,216	218	228	187,737

Source: Statistics Canada, Vital Statistics, *Marriage and Divorce* (annual), and Canadian Information Center on Health, *Marriages* (annual) from 1987 to 1990.

Table A6. Divorce

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	Number of Divorces												
1978	427	135	1,960	1,153	14,865	20,534	2,187	1,428	6,059	8,265	65	77	57,155
1979	483	144	2,275	1,223	14,379	21,793	2,152	1,528	6,531	8,826	62	78	59,474
1980	555	163	2,314	1,326	13,899	22,442	2,282	1,836	7,580	9,464	82	76	62,019
1981	569	187	2,285	1,334	19,193	21,680	2,399	1,932	8,418	9,533	75	66	67,671
1982	625	206	2,281	1,663	18,579	23,644	2,392	1,815	8,882	10,165	117	67	70,436
1983	711	215	2,340	1,942	17,365	23,073	2,642	2,000	8,758	9,348	88	85	68,567
1984	590	195	2,264	1,427	16,845	21,636	2,611	1,988	8,454	8,988	100	74	65,172
1985	561	213	2,337	1,360	15,814	20,854	2,314	1,927	8,102	8,330	96	72	61,980
1986	610	191	2,550	1,700	18,399	28,653	2,917	2,395	9,386	11,176	89	94	78,160
1987	1,002	246	2,640	1,952	19,315	38,223	3,771	2,751	9,170	11,697	113	105	90,985
1988	884	260	2,478	1,665	19,825	29,873	2,998	2,463	8,644	10,591	81	110	79,872
1989	981	243	2,524	1,647	19,790	31,202	2,847	2,451	8,227	10,630	82	92	80,716
1990	1,006	276	2,414	1,695	20,398	28,863	2,755	2,354	8,483	9,735	81	92	78,152
	Average Duration of Marriage among People who Became Divorced												
1978	12.5	12.5	12.3	12.6	13.3	12.4	12.0	12.5	10.7	11.8	11.2	11.0	12.4
1979	12.7	12.0	12.1	12.6	12.9	12.3	11.9	12.4	10.4	11.8	10.8	10.2	12.1
1980	12.5	13.1	12.0	12.4	12.8	12.3	11.6	12.2	10.3	11.6	11.6	12.0	12.0
1981	12.4	13.3	12.0	12.8	12.9	12.4	12.0	11.8	10.3	11.6	11.5	9.9	12.1
1982	12.8	12.8	11.8	12.7	12.7	12.3	12.0	11.9	10.2	11.8	11.4	11.5	12.0
1983	12.0	13.3	12.0	12.6	12.5	12.5	11.8	11.6	10.3	11.8	11.7	10.7	12.0
1984	12.6	13.8	12.4	13.5	12.8	12.6	12.1	12.0	10.5	12.5	11.9	10.3	12.4
1985	12.7	13.6	12.4	13.2	13.1	12.8	11.8	12.2	10.7	12.4	11.3	10.8	12.5
1986	13.4	14.0	12.4	13.2	13.3	12.7	12.2	12.1	10.5	12.3	10.6	11.6	12.5
1987	12.7	12.9	12.4	13.2	13.5	12.4	11.9	11.7	10.7	12.1	11.1	10.7	12.4
1988	13.1	12.8	12.2	13.5	13.3	12.5	11.9	12.2	10.9	12.1	12.2	10.6	12.5
1989	13.1	13.0	12.2	13.0	13.4	12.3	11.8	12.1	11.1	12.1	11.4	10.9	12.4
1990	13.1	13.2	12.6	12.8	13.4	12.1	12.1	12.2	11.2	12.2	11.4	9.9	12.4

Source: Vital Statistics and data calculated at the Demography Division.

Table A7. Fertility

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	Number of Live Births												
1978	10,480	1,985	12,548	10,790	94,860	120,964	16,397	16,550	35,396	37,231	447	1,204	358,852
1979	10,170	1,934	12,406	10,848	98,646	121,655	16,242	16,944	37,003	38,432	501	1,283	366,064
1980	10,332	1,958	12,369	10,636	97,421	123,316	15,989	17,057	39,749	40,104	476	1,302	370,709
1981	10,130	1,897	12,079	10,503	95,322	122,183	16,073	17,209	42,638	41,474	536	1,302	371,346
1982	9,173	1,924	12,325	10,489	90,800	124,856	16,123	17,722	45,036	42,747	525	1,362	373,082
1983	8,929	1,907	12,401	10,518	88,154	126,826	16,602	17,847	45,555	42,919	540	1,491	373,689
1984	8,560	1,954	12,378	10,360	87,839	131,296	16,651	18,014	44,105	43,911	519	1,444	377,031
1985	8,500	2,008	12,450	10,121	86,340	132,208	17,097	18,162	43,813	43,127	464	1,437	375,727
1986	8,100	1,928	12,358	9,788	84,634	133,882	17,009	17,513	43,744	41,967	483	1,507	372,912
1987	7,769	1,955	12,110	9,588	83,791	134,617	16,953	17,034	42,110	41,814	478	1,523	369,742
1988	7,487	1,977	12,182	9,617	86,612	138,066	17,030	16,763	42,055	42,930	521	1,555	376,795
1989	7,762	1,937	12,533	9,667	92,373	145,338	17,321	16,651	43,351	43,769	480	1,479	392,661
1990	7,604	2,014	12,870	9,824	98,048	150,923	17,352	16,090	43,004	45,617	556	1,584	405,486
	Fertility Rate by Age Group (p. 1,000)												
1988: 15-19	34.6	29.5	30.0	23.3	16.4	20.1	38.3	43.9	34.4	23.2	43.0	136.5	23.7
20-24	86.5	97.2	87.1	89.4	77.3	75.2	98.7	122.4	100.2	85.8	118.6	178.5	83.4
25-29	106.1	138.2	114.9	120.6	119.4	124.5	132.8	144.9	134.3	123.8	135.3	152.4	124.9
30-34	54.9	79.4	67.5	63.6	64.8	85.5	81.3	77.9	85.7	83.2	97.6	107.4	78.0
35-39	16.1	26.3	21.0	17.6	18.7	28.9	25.7	22.7	27.1	29.1	32.1	38.2	25.1
40-44	3.3	2.1	2.6	2.9	2.9	3.9	4.3	2.9	4.2	4.2	4.1	15.5	3.6
1989: 15-19	34.3	31.4	30.4	30.2	17.6	21.8	42.5	46.2	35.8	24.9	37.2	115.5	25.6
20-24	89.8	87.6	86.2	99.2	80.7	75.8	100.2	119.7	100.9	84.9	119.9	178.0	84.7
25-29	112.2	137.8	119.4	116.6	127.5	128.8	129.9	149.1	136.6	123.6	112.7	162.2	128.6
30-34	58.4	81.7	72.5	60.0	72.0	91.3	86.9	81.2	92.5	85.5	89.9	92.4	83.0
35-39	17.0	21.8	21.0	14.1	20.4	31.5	28.6	22.6	29.4	30.0	32.5	37.8	26.6
40-44	1.9	5.7	3.3	2.1	2.8	4.6	4.4	3.1	3.8	4.1	3.9	8.1	3.8
45-49	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.1	0.0	1.0	0.1
1990: 15-19	35.4	35.9	33.5	31.5	18.8	22.9	42.0	45.8	37.2	25.6	55.5	102.0	26.6
20-24	82.3	92.6	85.4	93.4	84.6	76.0	100.0	116.0	98.8	84.0	124.5	207.1	85.1
25-29	113.2	141.3	119.4	123.9	135.7	132.4	135.0	146.9	134.7	125.3	127.6	167.8	132.4
30-34	59.5	84.7	77.8	62.9	78.5	95.8	87.9	86.0	91.0	89.7	104.8	107.2	87.3
35-39	16.6	26.9	24.4	15.8	23.1	32.9	28.9	24.5	30.7	32.1	41.0	35.2	28.5
40-44	2.3	3.2	3.2	1.9	3.0	4.7	3.9	2.6	4.0	4.7	4.5	8.8	3.9
45-49	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.0	0.2	0.1	0.0	1.0	0.1

Table A7. Fertility – Concluded

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	Fertility Rate by Parity[1]												
1988: 1	22.6	24.2	22.9	22.5	23.0	24.0	24.7	24.4	25.5	23.6	30.7	38.1	23.3
2	18.8	19.4	18.0	18.1	17.0	19.5	20.3	22.4	22.3	19.5	25.3	29.9	18.8
3	7.7	10.4	7.6	7.1	5.6	8.1	10.1	12.7	10.5	8.6	10.3	18.9	7.8
4	2.1	6.1	3.1	2.6	2.0	3.1	6.2	8.0	5.7	3.6	4.5	22.0	3.4
1989: 1	23.8	26.4	26.1	25.1	27.2	27.6	28.6	27.7	28.1	26.3	29.7	37.2	27.3
2	19.4	20.5	20.2	19.6	19.8	22.0	22.4	24.2	25.2	21.6	24.3	32.0	21.6
3	7.6	11.0	8.6	8.0	7.2	9.3	11.3	14.3	11.9	9.2	7.7	20.1	9.2
4	2.2	4.4	2.4	2.1	1.7	2.7	4.1	5.4	4.1	2.8	4.7	10.6	2.7
1990: 1	23.5	26.6	27.3	25.7	28.3	28.8	28.8	26.7	27.8	27.3	34.2	38.1	28.1
2	19.2	23.0	20.3	19.9	21.3	22.6	22.3	23.9	24.3	21.7	28.0	34.3	22.2
3	7.0	11.3	8.4	7.7	7.8	9.2	11.3	14.1	11.7	9.2	11.0	21.1	9.3
4	2.2	3.9	2.6	2.1	1.9	2.7	4.1	5.6	4.0	2.7	4.5	10.9	2.8
	Total Fertility Rate (women aged 15 to 49)[1]												
1978	–	2.1	1.8	1.8	1.7	1.7	1.9	2.2	2.0	1.7	2.0	3.1	1.7
1979	–	2.0	1.7	1.8	1.7	1.7	1.9	2.3	2.0	1.7	2.1	3.2	1.7
1980	–	2.0	1.7	1.7	1.7	1.7	1.9	2.2	2.0	1.7	2.0	3.2	1.7
1981	–	1.9	1.6	1.7	1.6	1.6	1.9	2.1	1.9	1.7	2.1	3.0	1.7
1982	–	1.9	1.7	1.7	1.5	1.7	1.8	2.2	1.8	1.7	2.0	3.0	1.7
1983	–	1.8	1.7	1.7	1.5	1.7	1.9	2.1	1.9	1.7	2.2	3.2	1.7
1984	–	1.9	1.6	1.7	1.5	1.7	1.9	2.1	1.9	1.8	2.2	3.0	1.7
1985	–	1.9	1.6	1.6	1.5	1.7	1.9	2.1	1.9	1.7	1.9	2.8	1.7
1986	–	1.9	1.6	1.6	1.4	1.7	1.9	2.1	1.9	1.7	2.0	3.0	1.7
1987	1.6	1.9	1.6	1.6	1.4	1.7	1.9	2.0	1.9	1.7	2.0	3.1	1.7
1988	1.5	1.9	1.6	1.6	1.5	1.7	1.9	2.1	1.9	1.8	2.2	3.1	1.7
1989	1.6	1.8	1.7	1.6	1.6	1.8	2.0	2.1	2.0	1.8	2.0	3.0	1.8
1990	1.5	1.9	1.7	1.6	1.7	1.8	2.0	2.1	2.0	1.8	2.3	3.1	1.8

[1] Calculations done at the Demography Division from final population estimates (June 1) and data from Vital Statistics.

Source: Vital Statistics, *Births and Deaths*, Catalogue No. 84-204 (Annual) from 1978-1986; Canadian Centre for Health Information, *Births*, from 1987 to 1990.

Table A8. Mortality

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	Number of Deaths												
1978	3,115	994	6,877	5,183	43,552	61,116	8,297	7,749	11,944	19,058	89	205	168,179
1979	3,136	1,022	6,843	5,172	43,311	61,468	8,217	7,369	12,109	19,204	127	205	168,183
1980	3,345	1,035	7,004	5,297	43,512	62,746	8,436	7,651	12,710	19,371	128	238	171,473
1981	3,230	992	6,958	5,139	42,684	62,838	8,648	7,523	12,823	19,857	141	196	171,029
1982	3,385	980	6,941	5,197	43,497	63,696	8,490	8,202	12,968	20,707	118	232	174,413
1983	3,498	1,050	7,047	5,206	44,275	64,507	8,521	7,611	12,588	19,827	113	241	174,484
1984	3,520	1,109	6,913	5,272	44,449	64,703	8,290	7,710	12,730	20,686	108	237	175,727
1985	3,557	1,110	7,315	5,230	45,707	66,747	8,756	8,031	13,231	21,302	123	214	181,323
1986	3,540	1,121	7,255	5,458	46,892	67,865	8,911	8,061	13,560	21,213	113	235	184,224
1987	3,629	1,116	7,112	5,408	47,616	68,119	8,710	7,808	13,316	21,814	108	197	184,953
1988	3,591	1,112	7,412	5,450	47,771	70,679	9,100	8,100	13,894	22,546	136	220	190,011
1989	3,718	1,089	7,516	5,496	48,305	70,907	8,819	7,920	13,854	22,997	95	249	190,965
1990	3,884	1,143	7,388	5,426	48,420	70,818	8,863	8,044	14,068	23,577	115	227	191,973
	Number of Infant Deaths												
1978	128	15	149	127	1,126	1,373	225	236	405	472	5	28	4,289
1979	109	21	148	124	1,040	1,247	211	194	423	434	8	35	3,994
1980	110	22	135	116	953	1,175	184	193	500	442	9	29	3,868
1981	98	25	139	114	807	1,073	191	203	452	424	8	28	3,562
1982	99	15	106	110	800	1,041	146	186	442	423	11	22	3,401
1983	95	16	116	112	676	1,013	173	180	383	377	10	31	3,182
1984	79	16	97	81	645	992	144	169	425	378	7	25	3,058
1985	92	8	98	97	626	961	170	200	352	349	5	24	2,982
1986	65	13	104	81	604	969	157	157	393	355	12	28	2,938
1987	59	13	90	67	594	888	142	155	315	359	5	19	2,706
1988	70	14	79	69	563	910	132	140	347	362	3	16	2,705
1989	64	12	73	69	632	985	115	134	325	360	2	24	2,795
1990	70	12	81	71	616	955	141	123	346	345	4	19	2,783

Source: Vital Statistics, *Births and Deaths*, Catalogue No. 84-204 (annual) from 1978 to 1986, Canadian Centre for Health Information, *Deaths*, from 1987.

Part II

Structure in Transition: Two Centuries of Demographic Change

Yolande Lavoie

The author wishes to thank Gary Caldwell and the editor of the Report for their recommendations and excellent suggestions

Introduction

As a Background

Viewing the future based on the current socio-demographic situation is a rash undertaking, because the present situation merely represents only an isolated stage within a vast movement. And this movement really must be examined as a whole. Without a proper historical perspective, society's present situation may seem alarming: it certainly is worrisome from several points of view. Fear of unprecedented future hardship tends to obscure the phenomenal progress achieved by our society (for instance, in controlling life and death).

Today, Canada's demographic features bear little resemblance to those of the eighteenth and nineteenth centuries. Demographic parameters have changed fundamentally. Indisputably, however, the changes that differ most radically from the past relate to women. Women today live twice as long as their ancestors, and appreciably longer than men. Their childbearing role has become notably less burdensome than it was for their precursors. Accordingly, numerous opportunities have opened up for them. The foundations of a social structure that were reinforced by practice over millennia have been shaken by women's demands and their assumption of new roles.

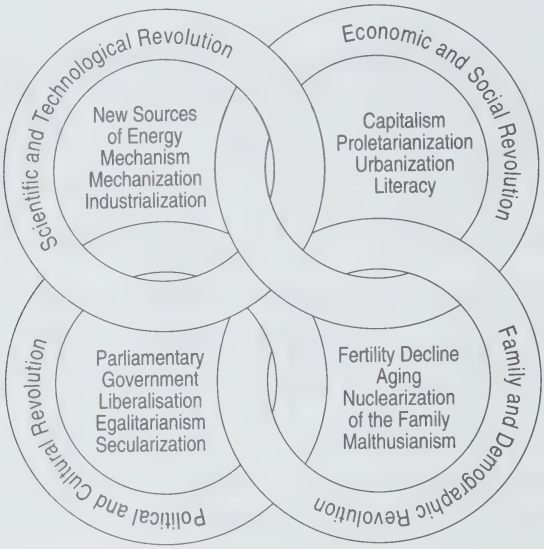
Because these changes occurred slowly until the mid-twentieth century, it is hard to fully grasp just how much increased longevity and lower fertility have transformed the ratios between generations. It is the abruptness of the recent evolution in fertility that has drawn the attention of policymakers and the public. At the same time that Canadian society is adjusting to a sudden decrease in the number of youth, it must cope with an increase in the number of elderly. And this increase will likely accelerate during the coming decades.

Canada is a land of immigration and its population growth and composition, including age and sex distribution, have been shaped by the effects of several waves of immigrants and significant migratory losses, as the persons arriving do not always remain in the country.

The country's demographic future will undeniably be characterized by an aging population and a possible overall population decrease as a result of causes that originated in the past. The slow transformation of survival profiles, fluctuating trends in reproductive behaviour, and finally, migratory gains and losses, have determined both the population processes through the centuries and its current structure. Due to the inertia of demographic phenomena, these factors will continue for a while to steer the evolution of the population and of society (even though mortality and fertility are most likely not expected to evolve much).

Figure 1

The Revolutionary Chain: Interdependencies and Interactions Underlying the Major Evolutions of Society from an Historical Perspective



Comment: *The industrialization of our western society, not only has caused the rural exodus, it has also been accompanied by a progressive literacy of the people, and a rise in institutional secularization. At the same time, where the means of production have changed, the ways of thinking have changed too. Equally, life-styles have been profoundly altered, as well as the ways that the family is constituted and society reproduces itself. This is the immediate expression of the interrelations between the principal sectors of social activity. Any major transformation in one principal sector of social activity can only be accompanied by important mutations in the others. This has been true in the past, but it will be even truer in the future because the complexity and interdependence of our world is continually increasing.*

Source: *Loriaux, Michel, 1990. "Il sera une fois... la révolution grise. Jeux et enjeux autour d'une profonde mutation sociétale," in: Population âgées et révolution grise. Les hommes et les sociétés face à leurs vieillissements. Actes du Colloque Chaire Quetelet '86. Louvain-la-Neuve (under the direction of Michel Loriaux, Dominique Remy et Éric Vilquin, Éditions CIRCO).*

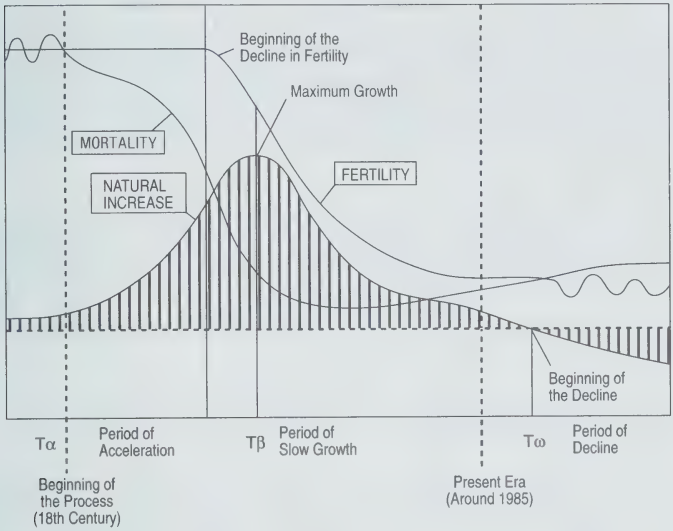
The Demographic Transition: A Universal Experience

It may be useful to put Canada's demographic situation in perspective by recalling that a chain of strongly linked societal revolutions[1] were part of the last centuries of human history (see Figure 1). Although the demographic transition interacts with other revolutions, it has its own dynamics. Still ongoing

[1] Loriaux, M. (1990). "Il sera une fois... la révolution grise. Jeux et enjeux autour d'une profonde mutation sociétale" in: *Populations âgées et révolution grise. Les hommes et les sociétés face à leurs vieillissements.* Chaire Quetelet '86 (directed by M. Loriaux, D. Rémy and E. Vilquin), Institut de démographie, Université catholique de Louvain, Louvain-la-Neuve, Éditions CIACO, pp. 3-32.

Figure 2

A New More Moderate Demographic Transition: Toward Increasing Aging and a Numerical Decline of Populations



Comment: The classical theory of demographic transition predicted, that after a long period of imbalance between fertility and mortality which has resulted in a large numerical increase in population, a new equilibrium at a low level of fertility and mortality must soon be reached. This has not occured, and these two great parameters governing natural demographic movements have continued their downward trend. In the future, it is likely that fertility will remain weak, or will fluctuate around a level which is quite low, even if at present, certain modest signs of recovery have been observed. At the same time, life expectancy will continue to increase. Nevertheless, deaths will remain numerically superior to births, because they will result from old cohorts of greater and greater size: the total size of the population will therefore decrease, and its growth will become negative, after having been weakly positive or at zero. It is probable that this new demographic revolution will not cause any comparable quantitative upsets to those that have occured in the past, but there is a risk in return, that an even more profound structural movement may be initiated.

Source: See Figure 1.

in developing countries, in the Western world this transition has shifted the population pattern from one with high mortality and fertility to one with low mortality and fertility, generating a large population increase in the process.[2] The post-transitional equilibrium of demographic parameters has not occurred as expected, at about the level of population replacement. Thus, continuing

[2] For a thorough analysis of this phenomenon, refer to Jean-Claude Chesnais, "*La transition démographique. Étapes, formes, implications économiques. Étude de séries temporelles (1720-1984) relatives à 67 pays.*" INED, collection Travaux et Documents, cahier no. 113, 1986, 580 pages.

trends could induce a decline of the population in the future. Therefore, Canada, like other Western countries, is likely on the verge of a second transition of low magnitude which would be more or less the "reversed image of the first"[3] (Figure 2).

The transition in Canada was not accompanied by a comparable increase in population. Contrary to what occurred in most of Europe, but in accordance with what was happening in the United States and Australia, the pre-transitional growth in Canada was intentionally high in order to populate vast areas with low population densities.

The social effects of the population transition are undeniable. These changes also have an individual character. The size and structure of the population represent the sum of individual behaviours with regard to fertility, mortality and migration: when profiles and behaviours of generations change, inevitably the characteristics of the population also change.

From One Demographic Pattern to Another in a Few Generations

To understand the changes in population, it is important that analysis be based on the generations that experienced those changes. For clarity and manageability, a few cohorts born at 30-year intervals will be studied in this paper, to illustrate the passage from the pre-transitional to the post-transitional stage. This interval represents roughly the number of years between parent-cohorts and child-cohorts, either between mother and daughters or father and sons. The interval is also long enough to reveal any fundamental trends. Within this time scale, estimates, which are an important part of the quantitative information available, provide an adequate reflection of significant changes.

Cohorts born in 1831, 1861, 1891, 1921 and 1951 have each lived through at least part of the period from the pre-transitional to the post-transitional stage. It appears that the first of these cohorts has lived a bit longer than the preceding ones during the eighteenth century. This is the oldest cohort whose survival profile was reconstituted by Bourbeau and Légaré (1982).[4] Born in the mid-twentieth century, the last cohort is just reaching mature age at this time, the second part of its survival profile has been estimated. In spite of some risk of error, it is important to compare its evolution with that of previous cohorts, since it differs so much from them. Such a comparison also reveals that the behaviour of the modern cohorts is vastly different from that of the older cohorts.

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[3] Loriaux, M. (1990) *idem*.

[4] Bourbeau, R. and J. Légaré (1982) *Évolution de la mortalité au Canada et au Québec, 1831-1931. Essai de mesure par génération,* Montréal, Les Presses de l'Université de Montréal, 267 pages.

To avoid confusion, the population's structure is examined by 30-year leaps. Thus, in order for each "window" to observe the age-sex profile of Canadians as a whole among the cohorts born during the nineteenth and twentieth centuries, one is born, another reaches its thirties and is thus settled in life, a third one is approaching the final stage of working life, and an older one is vanishing. This is why census data from 1861, 1891, 1921, 1951 and 1981 are used rather than the conventional 10-year census data compiled since 1851. Statistics Canada's projections allow study of the structures up to the year 2036.

For Canadians who were born and lived before the beginning of the population transition, works by Charbonneau (1975) will be referred to on occasion.[5] The survival profile of this group seems to adequately reflect the profile of a cohort born around 1700, though the dates of birth for the sample from that study spanned from 1640 to 1730.

FLUCTUATIONS IN GROWTH AND STRUCTURE: A RESULT OF INTERGENERATIONAL DIFFERENCES

For each cohort, time spans over about one century. At any given time, some 100 cohorts from newborns to the very old shape the population. All cohorts are not identical in terms of initial size, survival profile, and losses and gains attributable to migrations. The census captures individual experiences at a given time, the sum of which gives the size and characteristics of the population.

The Size: An Irregular Growth

Globally, from 1851 to 1991, evolution of generations over time has provided an enviable and assured growth of the Canadian population. Today Canada is 11 times larger than it was around the mid-nineteenth century. The addition of 360,000 people from Newfoundland in 1949 increased the existent size by only 2.6%. This is modest in relation to the total increase of 21.7% (2.5 million) during the 1941-1951 decade (Table 1).

The average rate of growth (in the range of 1.7% between 1851 and 1991) has varied considerably over time. It peaked between 1901 and 1911 and again between 1951 and 1961, as a result of a combination of vigourous natural growth and major migratory outbursts. By contrast, the last two decades of the nineteenth century, the 1930s economic crisis, and the end of the twentieth century – though these periods displayed positive growth – represent demographic lows (Table 1).

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[5] Charbonneau, H. (1975) *Vie et mort de nos ancêtres. Étude démographique*, Montréal, Les Presses de l'Université de Montréal, 267 pages.

Table 1. Population Movement and Growth Rate, 1851 to 2036

Year	Number (in thousands)	Period	Annual Growth Rate (%)
1851	2,436		
1861	3,230	1851 to 1861	2.9
1871	3,689	1861 to 1871	1.3
1881	4,325	1871 to 1881	1.6
1891	4,833	1881 to 1891	1.1
1901	5,371	1891 to 1901	1.1
1911	7,207	1901 to 1911	3.0
1921	8,788	1911 to 1921	2.0
1931	10,377	1921 to 1931	1.7
1941	11,507	1931 to 1941	1.0
1951	14,009 (13,648)	1941 to 1951	1.7
1961	18,238	1951 to 1961	2.7
1971	21,568	1961 to 1971	1.7
1981	24,343	1971 to 1981	1.2
1991	27,296	1981 to 1991	1.2
2011	31,690	1991 to 2011	0.8
2036	34,154	2011 to 2036	0.3

Note: Newfoundland population is included in the Canadian population as of 1951. However, this population was not included in the calculation of the growth rate between 1941 and 1951. Instead, the number between brackets was used.

Sources: Canadian censuses, Statistics Canada, *Population Projections*, 1990, Catalogue No. 91-520. Projection No. 3 (Fertility: 1.67 children per woman, Immigration: 200,000 per year).

Generally, those fluctuations in growth have not gone unnoticed. Periods of slow growth in particular, both in the past and today, have always been cause for concern. During the nineteenth century, public authorities actively sought to prevent and even to reverse any exodus. Measures to thwart depopulation in the "old" provinces and to fill the demographic gap in Western Canada did not show signs of success until the turn of the century.

Following the 1930s economic crisis, in the 1941 Census first monograph series, Charles[6] in 1948, assuming that trends prior to 1938-39 would continue, anticipated a rapid aging of the population, a steady decline in the rate of growth, and ***a slow decrease in population after peaking at 15 million around 1990***. These predictions were strongly contradicted by the demographic explosion that followed the Second World War.

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[6] Canada, Dominion Bureau of Statistics (1948) *The Changing Size of the Family in Canada*. Eighth Census of Canada, 1941. Census Monograph No. 1, by Enid Charles, Ottawa, 311 pages.

Some 20 years later, Henripin saw the decline in fertility as a possible sign of a return to the trend identified by Charles. An analysis of the change in the attitude of couples led him to express a concern that has proven to be true regarding population replacement:

> Therefore, nothing is certain. If one woman out of five, instead of one out of ten, stays away from marriage, Canadian couples which are being created, for the first time may not be able to have enough children for their generation to transmit life at the same rate they received it.[7]

Since then, the demographic issue has remained on the agenda. Today, concern is focused specifically on society's changing structure. Aging, which is attributed to a decline in fertility, gives a special perspective to studies about the family and the decreasing birth rate.

Structures: Youth Give Way to Elderly, and Men to Women

Fluctuations in age and sex ratios have been significant enough to upset the social order. Around the mid-nineteenth century, the distribution of population by age and sex largely reflected the pre-transitional stage. The size of the 15 cohorts that constitute the 0 to 14 years of age group surpassed that of the 25 cohorts that constitute the young adult group (15 to 39 years of age). The mature group was three times smaller than the 15 to 39 years of age group. Elderly people were almost totally absent from this youth-dominated structure. The age structure has slowly evolved towards a more equal age representation. This trend is shown by the slow growth in the size of the 0 to 14 years of age group and by the pace at which the number of people aged 40 and over increases. Gains are the highest among the elderly: between 1861 and 1981, the size of this group had a 24-fold increase (Table 2). The average annual rate of growth over the 120 years varies according to the age groups and hovers between 1.2% among the 0 to 14 years of age group and 2.7% for those aged 65 and over.

Barring a significant increase in fertility, by the year 2036 the number of people aged 40 and over should exceed that of younger people, contrary to the traditional situation. Women aged 65 and over could well become as numerous as women aged from 15 to 40 (Figure 3).

Another significant change occurred ***between 1971 and 1981 when, for the first time, the size of the female population exceeded that of the male population.*** After a modest breakthrough as early as 1921 among the old age segment, the predominance of the female population appeared in 1951 among the young adult group, and then systematically for the group over 40 years of age in 1981. The slight predominance of the male population among children is mainly because on average 105 boys are born for every 100 girls.

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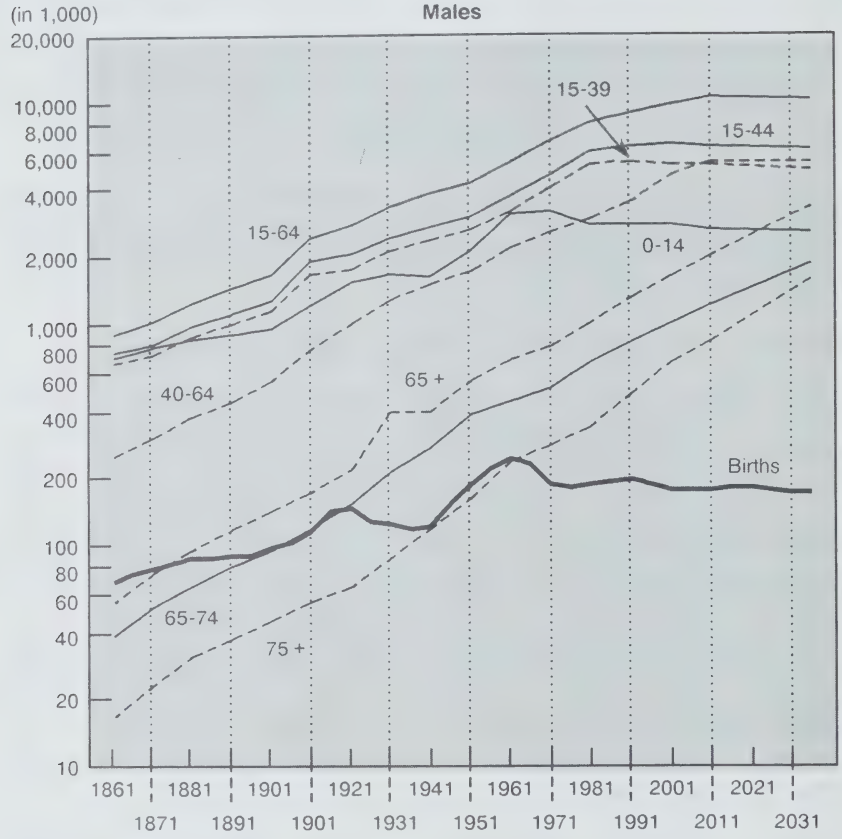
[7] Henripin, J. (1968) *Tendances et facteurs de la fécondité au Canada.* Monograph on the 1961 Census, Federal Bureau of Statistics, Ottawa, 425 pages.

Figure 3A

Evolution of the Canadian Population by Sex and Broad Age Groups, 1861-2036



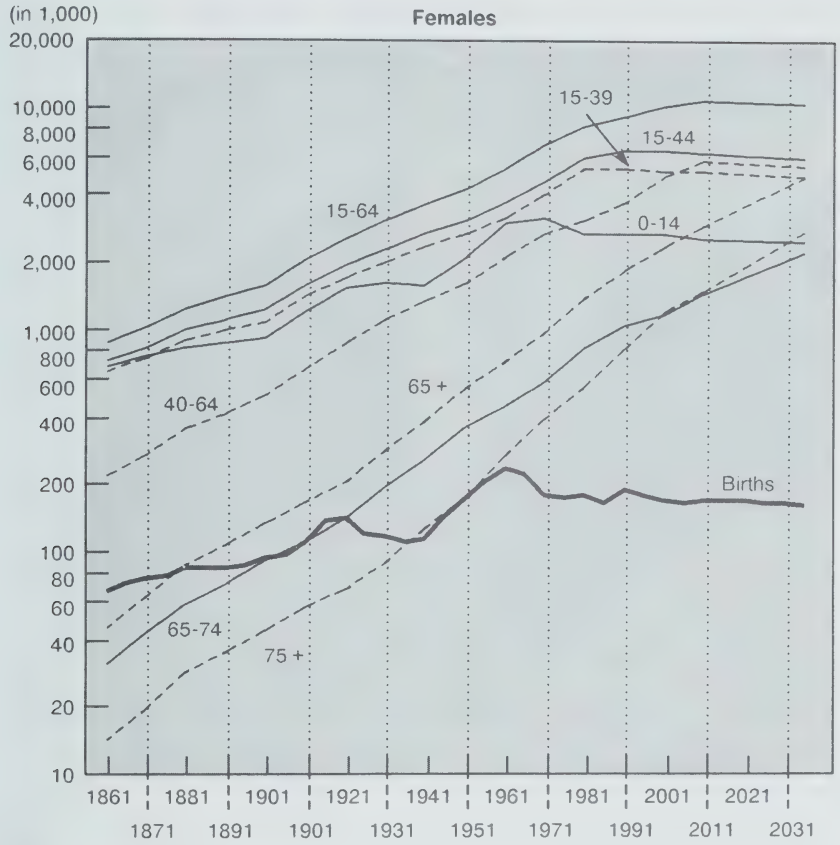
Source: Censuses of Canada (1961-1981) and projections from Statistics Canada (1991-2036).

The potential working population (that is, the segment aged from 15 to 64) has increased considerably between 1861 and today (Figure 4). Before 1981 there had not ever been such a high proportion of adults – two-thirds – in the population. By the year 2011 and after, persons aged 40 and over will dominate the working population.

The sudden and transitional increase in the proportion of adults signals the arrival of the baby boomers (some 20 cohorts born between the end of the 1940s and about 1965). Until now, this group has rejuvenated the Canadian demographic structure. It is responsible for the noticeable rise in 1961 in the proportion of

Figure 3B

Evolution of the Canadian Population by Sex and Broad Age Groups, 1861-2036

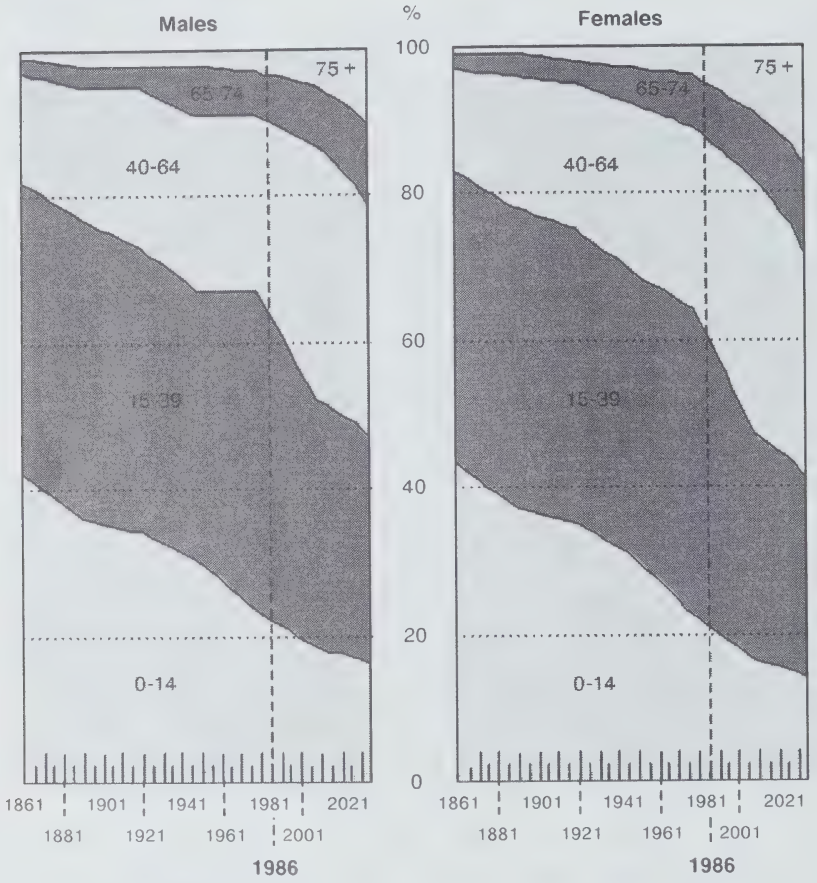


Source: Censuses of Canada (1961-1981) and projections from Statistics Canada (1991-2036).

youth, which previously had been declining. Twenty years later, in 1981, because of a new downward trend in fertility, the proportion of youth fell again while the baby boomers increased the proportion of young adults to 43%. At the turn of the twenty-first century, the same cohorts will accentuate the aging of the active population. By the year 2030, the last cohorts in great numbers will pass the 65 years of age threshold. Then, the age structure will actually be inverted and the elderly will account for about one-quarter of the population – barring a spectacular upsurge in fertility to disrupt this evolutionary pattern.

Figure 4

Population Distribution by Broad Age Groups and Sex, Canada, 1861-2036



Source: Table A2.

TRANSITION OF MORTALITY: DISCREET BUT FUNDAMENTAL

To a great extent the major changes in the age-sex structures are attributable to a transformation in survival patterns. French colonists who settled in the St. Lawrence Valley during the seventeenth and eighteenth centuries, like the European populations of the time, lived through the demographic pre-transitional stage when life and death were dispensed with equal generosity. This was also most certainly the case for the first British immigrants who arrived shortly after the Conquest (1763).

From Early Death to Universal Access to Old Age

The proportion of deaths occurring at an early age and, to a lesser extent, during adult age, produced an average life span of about 30 to 35 years among pioneers. Thus, Charbonneau estimated the average length of life (or life expectancy at birth) to be 35 years for "our eighteenth-century ancestors" (Figure 5). By comparison, the same author,[8] for inhabitants of Tourouvre-au-Perche in France, arrived at life expectancy values of 33 years for those born between 1720 and 1770, and 25 years for those born during the 1670 to 1719 period - a much less favourable time.

Some four generations later, based on estimations by Bourbeau and Légaré, ***Canadian men born in 1831 lived on average 40 years, and Canadian women, 42 years*** (Figure 5). Though modest, the progress is noticeable compared with the progress for men and women born around 1700. The average gain per generation would be around 1.5 years, although the improvement in life expectancy may have been more significant among the cohorts that appeared immediately before 1831, than among the older ones.

By leaping four generations forward one arrives at a contemporary cohort, ***that of 1951, which is now in the prime of life. Its life expectancy at birth is 72 years for men and 80 years for women.*** In this case, the progress is spectacular. The average length of life has almost doubled compared with Canadians born in 1831, and the two-year advantage of women over men at that time has soared to seven years. Death at an early age has declined further since the mid-twentieth century, and ***boys and girls who are born in Canada today are expected to live twice as long as those who were born during the Patriots' Rebellion (1830 to 1840).*** They may even dream - with some legitimacy - of attaining an "average length of life of about 90 years, with a few survival peaks reaching 115 years"[9] considering that from the beginning of the transition, cohorts have always had an average length of life exceeding the one calculated at the time they were born.

Considering the proportion of survivors at different ages among succeeding cohorts over time reveals just how profoundly their profile has changed during the past two centuries (Figure 5). Viewed from the end of the twentieth century, it may seem astonishing that a marked decline in mortality below age 15 was not observed until the 1891 cohort. At the same time, Canadians born in 1831 who lived through adult ages and old age outnumbered those born during the seventeenth century.

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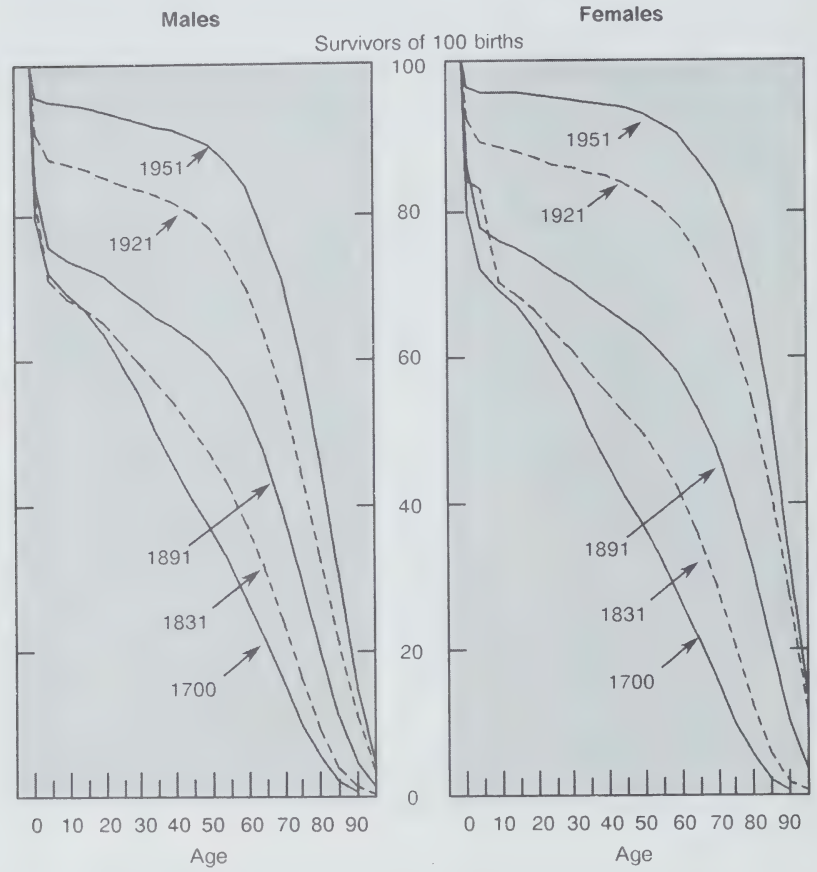
[8] Charbonneau, H. (1970) *Tourouvre-au-Perche aux XVII^e et XVIII^e siècles. Étude de démographie historique,* Paris, Presses universitaires de France, 424 pages (Travaux et documents, published by l'Institut national d'études démographiques, cahier 55).

[9] Loriaux, M. (1990), *op. cit.*

Figure 5

Evolution of Survivorship from the 1700 Cohort to the 1951 Cohort, by Sex, Canada



Note: For each line the upper right part of the graph represents the years of life lost.
Source: Table 1.

During the nineteenth century, infantile infectious diseases (scarlet fever, diphtheria, measles, and so on) destroyed a great number of children. These children were also not spared the great epidemics: cholera (1832), typhus (1846-49), and smallpox (1885-86) are only a few of the better-known. The fight against these diseases and efforts to improve public hygiene intensified at the beginning of the twentieth century. A giant leap in survival to age 10 can be readily observed in the 1891 to the 1921 cohorts.

The ratio of survivors from the 1951 cohort to those from the 1831 cohort, at given key ages, is a good indicator of the weight given to advanced ages by cumulative survival gains since birth.

Age	Males			Females		
	(1) Surviv. C.1831	(2) Surviv. C.1951	(3) Ratio (2) ÷ (1)	(1) Surviv. C.1831	(2) Surviv. C.1951	(3) Ratio (2) ÷ (1)
1	814	958	1.18	838	966	1.15
15	666	944	1.42	681	956	1.40
40	536	910	1.70	548	941	1.72
65	308	776	2.52	355	870	2.45
75	160	598	3.74	203	772	3.80

Over four generations, the dynamics were deeply altered: for the 1951 generation, old age was 2.5 times more accessible than it was for the 1931 generation. Consequently, the increase in the number of survivors among youth appears moderate. In general, the proportion of survivors had similar increases for both men and women. Considerably larger proportions (observed and estimated) of female survivors for the 1951 cohort in relation to male survivors is mainly attributable to the female advance already observed as early as the cohort born in 1831.

In a stationary population,[10] the survival pattern for the 1951 cohort implies a relatively high frequency of three or four coexisting cohorts: the number entering adulthood only marginally exceeds the number exiting some 50 years later. According to the pattern of the 1831 cohort, two individuals reached adulthood while only one reached old age. Therefore, people were not likely to know their grandparents, and were even less likely to know their great-grandparents.

Nostalgia for the times during which ancestors lived may be easier to resist when one realizes that more men and women will live beyond their 60th birthday among the cohort born in 1951 than there were survivors at age 1 among children from the pre-transitional stage. Among recent generations, there are as many men and noticeably more women at age 75 than there were who survived to age 25 among the generations of the seventeenth and eighteenth centuries. Barely more than half of those born around 1831 survived to their 40th birthday. Among the 1951 cohort, it is only at ages between 75 and 80 for men, and around 85 for women, that the size of the population drops by half. Limited to only less than one-quarter of the members of cohorts born around 1700, access to old age has progressively spread to almost everyone, producing a more lengthy old-age period.

[10] A stationary population is one with no migrations, with invariable rules regarding mortality and fertility by age, where the number of deaths balances the number of births, and as a result, whose rate of increase is zero.

The Fulfilment of Adult Life and Old Age

The meaning of increased longevity can be better illustrated by segmenting life expectancy at birth into periods, with each representing an important stage of life. The most common stages are childhood (0 up to 15 years of age); adult age (from 15 to 65), which includes both young adults (15 up to 40) and mature adults (40 to 65); and old age (over age 65). Ages of entry into and separation from the labour force, as well as the two old-age periods (from 65 to 75 years of age and beyond age 75) should also be distinguished[11] (Table 2).

If survival was universal to age 100, a person would accumulate 15 years of youth, 50 years of adult life and 35 years of old age. ***During the pre-transitional stage, occurrence of death was so high that on average the deficit in the youth segment was 4 years. In the adult age segment the deficit was 27 years, and the life span in the old-age segment was only 2 years. The 1951 cohort until about age 65 approaches the optimum number of years "to be lived" and should allow men to live 13 years in old age, and women, almost 19 years.***

Formerly concentrated during the first part of life, the reserve of years of life are more and more evenly distributed among all age segments until old age, especially for women. The persistence of a growing proportion of members from each cohort through advanced ages contributes significantly to an aging population, to female predominance among the elderly, and to the increase from year to year in the number of people.

The Emergence of a Fourth Age

Early deaths are rare nowadays and the margin of possible progress with regard to survival among ages below 50 is very slim (Table 3). Henceforth, the significant life spans to be conquered are to be found from age 60. Among the cohort born in 1981, which has recorded less than 1% losses during the first year of life, 97% could reach the age of 40 according to predictions. It remains to be seen what the biological limit of life will be in the future. Previously, the evolution of mortality has universalized access to advanced ages, although it seems that this has not resulted in a significant increase in longevity. Formerly very rare, the age of 100 is still infrequent nowadays. Could it become common among the general population, for men as for women? The fight against degenerative diseases appears to be a greater challenge than the battle against infectious diseases which, by and large, has been won. Also, great progress has been made in treating many premature cardiovascular problems. One fact remains, however: perceptible progress can be achieved only beyond age 75 for women, and from age 65 for men (Table 3).

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[11] The limits of these stages of life are set arbitrarily and do not mean the same thing for generations born more than 100 years ago and for those born since the mid-twentieth century. However, they have the advantage of being broadly accepted and, more importantly, of allowing comparisons when necessary between great-grandparents, grandparents, parents and children.

Table 2. Distribution of Life Expectancy, by Years Spent in the Various Segments Which Constitute Major Stages of Life, 1700 Cohort, and 1831 to 1951 Cohorts, Canada

Age	Both Sexes	Males					Females				
	1700	1831	1861	1891	1921	1951	1831	1861	1891	1921	1951
Broad Age Groups											
0 to 14 years	10.7	10.7	10.8	11.4	13.1	14.2	11.0	11.1	11.8	13.4	14.4
15 to 64 years	22.7	26.0	27.3	31.5	39.6	44.9	27.1	28.5	32.8	41.6	46.6
65 years and over	2.1	3.5	4.6	6.4	9.9	13.2	4.3	5.7	8.9	15.2	18.6
Selected Groups											
Young Adults											
15 to 39 years	14.2	15.1	15.5	17.1	20.9	23.2	15.5	15.9	17.6	21.5	23.7
15 to 24 years	6.4	6.4	6.5	7.1	8.5	9.4	6.6	6.7	7.3	8.7	9.5
25 to 39 years	7.8	8.7	9.0	10.0	12.4	13.8	8.9	9.2	10.3	12.8	14.2
Adults											
40 to 64 years	8.5	10.9	11.8	14.4	18.7	21.7	11.6	12.6	15.2	20.1	22.9
40 to 54 years	5.8	7.2	7.7	9.2	11.8	13.4	7.5	8.1	9.5	12.4	13.9
55 to 64 years	2.7	3.7	4.1	5.2	6.9	8.3	4.1	4.5	5.7	7.7	9.0
Seniors											
65 to 74 years	1.5	2.4	2.9	3.9	5.4	6.9	2.8	3.4	4.7	6.8	8.3
75 years and over	0.6	1.1	1.7	2.5	4.5	6.3	1.5	2.3	4.2	8.4	10.3
Life Expectancy at Birth	35.5	40.2	42.7	49.3	62.6	72.3	42.4	45.3	53.5	70.2	79.6

Sources: 1700: Charbonneau (1975: 125); 1831 to 1891: Bourbeau and Légaré (1982); 1921: Bourbeau and Légaré, update; 1951: reconstructed tables, based on Coale and Guo's observed tables from 1951 to 1981, and projected tables from 1991 to 2011, *Population Index* (55-4), 1989.

Table 3. Potential Years of Life Lost in Specific Age Groups, in Percent, 1700 Cohort and 1831 to 1981 Cohorts, Canada

Age	Both Sexes 1700	Males					Females				
		1831	1891	1921	1951	1981	1831	1891	1921	1951	1981
0 to 14 years	29	29	24	13	5	1	27	21	11	4	1
15 to 39 years	43	40	32	16	7	3	38	30	14	5	2
40 to 54 years	61	52	39	21	11	N/A	50	37	17	7	N/A
55 to 74 years	73	63	48	31	17	N/A	59	43	23	10	N/A
65 to 74 years	85	76	61	46	31	N/A	72	53	32	17	N/A
75 to 84 years	94	90	80	67	54	N/A	87	69	47	34	N/A
85 years and over	..	..	..	..	..	..	..	..	..	..	..

Note: This table contains data which are obtained by subtracting, for each age group, the years lived, registered in the life tables, from the years that could potentially be lived, assuming a 0% mortality rate.

N/A: Not available.

.. Calculation requires that the upper biological limit to human life be known.

Source: Table 2.

Table 4. Weight in Percent of Various Age Groups, Assuming a Life of Average Length, 1700 Cohort and 1831 to 1951 Cohorts, Canada

Age	Both Sexes 1700	Males					Females				
		1831	1861	1891	1921	1951	1831	1861	1891	1921	1951
0 to 14 years	30	26	25	23	21	20	26	24	22	19	18
15 to 64 years	64	65	64	64	63	62	64	63	61	59	59
65 years and over	6	9	11	13	16	18	10	13	17	22	23
15 to 39 years	40	38	36	35	33	32	37	35	33	30	30
40 to 64 years	24	27	28	29	30	30	27	28	28	29	29
65 to 74 years	4	6	7	8	9	10	7	6	9	10	10
Total	100	100	100	100	100	100	100	100	100	100	100

Source: Table 2.

Increased longevity into advanced ages calls for a more discriminating concept of old age. This introduces the idea of a fourth age. Activities, lifestyle, health and needs can vary greatly depending on whether one is below or beyond age 75, though the boundary between the third and the fourth age is not so precise, no more so than it is between other ages of life.

The New Distribution of the Ages of Life

The deep transformation of the survival profile over generations has altered the weight of each major age of life (Table 4). Canadians today live twice as long as their seventeenth century ancestors. However, the portion representing the post-40 period has risen from 30% of a short life in the past to 50% of a long life today. In bygone days, the ratio of youth to old age was 5 to 1, while nowadays it is 1 to 1. The increasing importance of the stage beyond the 65th birthday opens up a new way of thinking about both the duration and the organization of adult life.

Here again, the change is most radical for women. The increase in the life segment after age 40 created the needed conditions that allowed women as a whole to anticipate new perspectives beyond their traditional roles. Their insistence on coming into the public sphere during this century should not be a surprise. The spectacular progress in life expectancy should not be forgotten when attempting to explain women's massive participation in the workforce.

TRANSITION OF MORTALITY AND FEMALE ROLES

Our foremothers were so absorbed by motherhood and parental and domestic tasks that few of them were able to conduct activities of a public nature in a sustained way. Nonetheless, they have generally assisted their husbands in the "family operation" either by working at home or occasionally, with an outside job, to supplement the family income. At age 40, these women had used up 70% of the years of life allotted to their cohort. The majority of mothers today, however, spend an important part of their lives pursuing money-earning activities outside the home. According to the estimates presented in the previous section, ***women born around 1950 still have, at age 40, more than half their lives ahead of them, which is twice as long as for women from the beginning of the eighteenth century.***

How did the transition from one situation to the other occur through generations? How did the profile of women's reproductive period change allowing them to pervade the workforce, to exercise activities and functions that in the past were practised by men only? To fathom this, one only needs to consider the proportion of women who reached the childbearing period, who created couples and bore children.

Surviving, Marrying and Becoming a Mother

Of the initial total number among generations, only women who reached puberty (a biological condition) and age of marriage (a social condition, on average noticeably later than puberty), could participate in population replacement. Births out of wedlock seemingly represented only a minute fraction of births until the mid-twentieth century.[12] In fact, taking this factor into account would only give the illusion that these results are precise when, more often in the past, they were merely approximations. Reliable data on fertility have become available only since 1921.

Puberty occurred later in life among our foremothers than for women today, happening on average around age 15 for the former and around age 12 among women today. To simplify, demographers generally set the beginning of the reproductive period at the 15th birthday. Whether they were born during the eighteenth century or in the early nineteenth century, about two-thirds of our foremothers reached age 15, and less than half reached the upper limit of the reproductive period. In contrast, few Canadian women born around 1950 will die before reaching their 50th birthday (Table 5).

However, becoming a mother entailed reaching puberty as well as marrying before age 50. Therefore, the portion remaining single, or women still unmarried at age 50, must be subtracted from each cohort. These never-married women represent from 4% to 11% of female survivors at age 50 among the cohorts considered (Table 6).

Table 5. Survivors at Different Ages of a Group of 1,000 Women at Birth, During the Reproductive and Fertile Period of their Lives, 1700 and 1831 to 1951, Canada

Age	Cohort (per thousand)					
	1700	1831	1861	1891	1921	1951
15 years	667	681	691	744	874	956
20 years	634	659	672	731	868	953
45 years	405	519	552	645	834	935
50 years	365	490	527	627	820	928

Source: Table A3.

[12] Before 1730, the proportion of illegitimate births was estimated to be 1.25% (see L. Paquette, "Les naissances illégitimes sur les rives du Saint-Laurent avant 1730", and R. Bates, *Revue d'histoire de l'Amérique française,* vol. 40, no. 2, pp. 239-252.) There are no data available for the period from 1730 to 1921, but in the early 1920s the percentage of illegitimate births in Canada was 2.2%, according to the Dominion Bureau of Statistics (Vital Statistics). This percentage varied upward afterwards. From 4.5% in 1945, it fell to less than 4% in 1950. It is only after 1960 that births out of wedlock began to represent increasingly higher proportions of all births.

Table 6. Proportion of Single Women of Childbearing Age, Female Cohorts 1700 and 1831 to 1951, Canada

Age	Cohort (per thousand)					
	1700	1831	1861	1891	1921	1951
15 to 19 years	94	90	93	93	94	92
20 to 24 years	47	60	65	58	55	45
25 to 29 years	20	27	39	32	21	20
30 to 34 years	12	18	23	19	12	13
35 to 39 years	8	13	16	14	9	9
40 to 44 years	7	12	13	13	8	6
45 to 49 years	6	11	12	12	7	4
50 years	6	10	11	11	7	4

Sources: 1700 Cohort: Estimates obtained by interpolation of the number of single women in the marriage table (Charbonneau, 1975: 163, Table 43); Cohorts 1831 to 1951 were estimated by the author from census data and projections by marital status.

The number of women who died unmarried between the ages of 15 and 50 should be added to the number of women excluded because of death or because they never married. As well, those involved in childless couples, whether caused by voluntary or involuntary infecundity, must be included. The respective portions representing women who did not contribute to the reproduction of their cohort are shown in Table 7.

Table 7. Distribution of Women, According to their Participation in the Replacement of their Cohort, per Thousand Women at Birth, Cohorts 1700, and 1831 to 1951, Canada

Cohort	Deceased Before the Age of 15	Single at Age 50	Single and Deceased Between Ages 15 and 49	Married Infertile	Did not Participate	Participated
	(1)	(2)	(3)	(4)	(1 + 2 + 3 + 4) (5)	1 000 - (5) (6)
1700	333	22	71	41	467	533
1831	319	49	59	55	482	518
1861	309	58	59	80	506	494
1891	256	69	36	64	425	575
1921	126	57	15	70	268	732
1951	44	37	6	90	177	823

Source: Author's calculations.

The transformation that has occurred since the 1861 cohort is stunning. It took only one century and three cohorts for the portion of women who participated in the replacement of their cohort to grow from slightly more than 50% to more than 80%. ***The decline in mortality before age 50 has been so significant that the proportion of women who died before having borne children among the cohort from the year 1700 fell from 400 per 1,000 to 50 per 1,000 for the 1951 cohort.***

By comparison, from a century perspective, nuptiality has played a very modest role, one closely linked to the economic situation. Marriage has become one type of union among others and the creation of couples is no longer as closely linked to reproduction as it was in the past. Thanks to efficient birth control methods, couples are now able to link the birth of children to several life circumstances, or they may choose to remain childless.

How Many Children to Ensure Replacement of a Cohort?

For a cohort to be replaced, each person from the parent-cohort must have a counterpart in the child-cohort. Countries recently peopled by Europeans (Americans and Oceanians) have tended to rely on high fertility to ensure population growth. French Canadian women are often cited as an example of exceptional fertility. From this point of view, colonies peopled by Anglo-Saxons likely differed little from French Canada until the demographic transition began. At least, this is what can be inferred from Henripin's estimations[13] for Ontario during the mid-nineteenth century, and from the studies of Temkin-Greener and Swedlund[14] on the demographic transition in the Connecticut Valley.

A cohort of 1,000 women at birth who incurred no losses by death before the end of the reproductive period would have borne about 8,200 children, according to the reproductive behaviour prevalent in the early eighteenth century. This represents a lifetime fertility of slightly more than 8 children per woman.[15] Since a significant proportion of women from that period did not survive to age 50, the cohort under consideration has only given birth to some 4,300 children (Table 8). Thus, the cumulative net fertility is almost twice as low as the lifetime fertility. Mortality is a major factor: the lower the proportion of female survivors during the reproductive period, the wider the gap between the completed net fertility and lifetime fertility.

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[13] Henripin, J. (1968), *op. cit.*

[14] Temkin-Greener, H. and A.C. Swedlund (1978), "Fertility Transition in the Connecticut Valley: 1740-1850", *Population Studies,* vol. 32, no. 1, pp. 27-41.

[15] Average number of children produced by a cohort or a generation, considering that all women from that cohort reach the age of 50, which is regarded as the end of the reproductive period.

Table 8. Profiles of the Reproductive Life of Female Cohorts, 1700 and 1831 to 1951, Canada

	Cohorts					
	1700	1831	1861	1891	1921	1951
Percentage of Women who Reproduced	53.0	52.0	49.0	58.0	73.0	82.0
Average Number of Years Lived Between Ages 15 and 50	18.3	20.6	21.4	24.1	29.8	33.1
Total Number of Children, Excluding Mortality (Number of Children per Women)	8.2	6.5	4.8	3.6	3.1	1.9
Net Number of Children per Woman	4.3	3.9	3.0	2.5	2.7	1.8
Reproduction Rate (R_o)	2.1	1.9	1.5	1.2	1.3	0.9
Reproduction Rate, According to Years Lived (R_a)	2.2	2.0	1.8	1.6	1.5	0.9

Source: Percentage of women who reproduced: See Table 5. Average Number of Years Lived Between Ages 15 and 45: Life Tables by Cohorts. Net number of children and rate of reproduction, based on H. Charbonneau and Henripin's work.

A complete population replacement occurs when each woman from the mother-cohort is represented by at least one daughter in the following cohort. This daughter to mother cohort ratio is called the "net reproduction rate". There were only 2,100 daughters[16] to ensure the replacement of 1,000 foremothers from the eighteenth century. In such a case, nonetheless, the population doubles in about 30 years. Moreover, if the daughters live longer than their mothers, their extended presence among the population allows them to contribute more to the population growth. This happens in a proportion equivalent to the ratio of their life expectancy to that of their mothers; the comparison is made between the number of years lived by the mothers and those lived by the daughters. Earlier, it was seen that from the eighteenth to the mid-nineteenth century, the life expectancy increased by only 1.5 years from a parent-cohort to a child-cohort. Therefore, the difference between the net reproduction rate and the gross replacement rate was slight during that period (Table 8).

In contrast, the profile of reproductive life from eighteenth to twentieth century women changed radically. Reproductive behaviours have changed to the point where lifetime fertility rates are four times lower today than they were in the past. But the decline in mortality is so significant that the net reproduction rate and the replacement rate have diminished by only slightly more than half.

[16] On average 105 boys are born for 100 girls. Therefore, girls represent a proportion of 0.488 of the cumulative fertility.

If Canadian women born in 1951 had the same fertility as their seventeenth century foremothers, their lifetime fertility would be 7.8 children (on average 3.8 girls). This would result in an annual growth rate of 4.5% and in the population doubling every 15 years. If, on the contrary, the fertility of the 1951 cohort was applied to the foremothers, the cumulative net fertility would be about 1 child per woman, or 0.5 daughters per mother. In such conditions, the population would decrease by 2.3% annually and would diminish by half in 30 years.

However, the cohort born in 1951 will not have the 2.1 children that would ensure its replacement. This would have occurred if only 1 out of 10 women had produced one more child. If 1 out of 2 women had borne that additional child the average fertility would have risen to 2.4 children, enough to ensure a moderate growth of 0.5% per year (doubling the population in 140 years). In fact, these 2.4 children represent the average fertility of Canadian women born around 1942-1943. Today these women are nearing the end of their fertile lives.

The phenomenal extension of longevity disrupted beyond expectation the organization of women's lives and, as a result, men's lives also. The decrease in the proportion of a woman's life devoted to motherhood and its related tasks over two centuries is impressive. Canadian women from the seventeenth and eighteenth centuries on average married at 22 years of age and, if they remained married until their fiftieth birthday, bore some 10 children. Therefore, they spent about 10 years in pregnancy or in post-partum amenorrhea. The first pregnancy usually occurred a few months after marriage and the last one around age 40. Women born in 1951 reduced the period devoted to family formation to less than five years. Excluding pregnancy and post-partum amenorrhea (less than two years), according to the estimates, these women will still have, between age 15 and 65, a period equivalent to the number of years lived by men during this interval. Inevitably, the timetable of adult women changes and the traditional organization of gender roles collapses.

RISE AND FALL OF THE BIRTH RATE

The mortality transition was expected to favour the fertility transition, therefore a lower ratio of the size of each new cohort to the size of previous cohorts was foreseeable. As a result, both the rate of population growth and the population's distribution by age were modified.

The Slowing Down of Growth

The role of the birth rate in population growth has been diminishing since the mid-nineteenth century. The ratio of the number of births tc the total size of the population (the crude birth rate) is clearly decreasing (Table 9). While

there was an eight-fold increase in the Canadian population between 1861 and 1991, there were only 3.5 times as many newborn children in 1991 as there were in 1861. Even when the observation period ends with the 1951-1956 cohorts whose sizes rapidly increased, the growth rates differ: the total population increased on average by 1.7% annually, and births increased by only 1.2%.

Aging, a Less and Less Efficiently Contained Process

As long as new cohorts are larger than the previous ones, the birth rate helps to contain the aging of the population; this aging is induced by the increased probability of survival of the second cohort compared with the first cohort. Only when the number of births declines from one year to another does the evolution of the birth rate contribute to aging. Until now, this has occurred twice in a transitory way: once during the 1930s and, more recently, from 1960 to 1975. It should happen again very shortly and in a lasting manner if there is no sustained rise in fertility to the level required for cohort replacement. The fertility rate of 1.67 children per woman, proposed by Statistics Canada as the medium hypothesis in its projections, results in a sustained decrease in the number of births since 1989, which is the starting year for the projection (Table 9). It is now known that the slight increase in the fertility rates during 1988 and 1989 has thwarted the predictions. The number of births is now increasing slightly, but very few would dare forecast a future fertility rate of two children per woman based on this increase.

Table 9. Number of Persons Born in Selected Cohorts and their Birth Rates, Periods 1831 to 2036, Canada

Cohorts	Number of Persons (in thousands)			Period	Birth Rate (per thousand)
	Males	Females	Total		
1831 to 1836	...	...	...	1831 to 1836	55
1861 to 1866	370	350	720	1861 to 1866	43
1891 to 1896	442	422	864	1891 to 1896	35
1921 to 1926	630	595	1,225	1921 to 1926	27
1951 to 1956	1,087	1,029	2,116	1951 to 1956	28
1981 to 1986	960	915	1,875	1981 to 1986	15
2011 to 2016	892	851	1,743	2011 to 2016	11
2031 to 2036	843	803	1,646	2031 to 2036	10

Source: 1831 to 1896: Henripin 1968, Appendix B. The values have been corrected by replacing Henripin's survival probabilities by those estimated by Bourbeau and Légaré, especially for Canada, with minor adjustments. 1921 to 1986: vital statistics reorganized to be in agreement with census years. 2011 to 2036: Statistics Canada, *Population Projections*, Catalogue No. 91-520, Projection No. 3.

Interaction Between the Birth Rate and Population Structures

Of course, the birth rate has declined because women are having on average fewer and fewer children. The synthetic measure of fertility[17] (total fertility rate) was slightly higher than 7 children per woman around 1850. One century later, it had decreased by half. For the last 20 years, the total fertility rate has fluctuated between 1.6 and 1.9 children per woman.

The birth rate has fallen less rapidly. Its value around 1990 was one-third of what it was around 1850. In fact, the birth rate is influenced by the age structure. This structure has been transformed by increased longevity, the drop in fertility, and migrations.

The spectacular decline in mortality from the mid-nineteenth century to this day has almost doubled the average length of life and therefore accounts for an almost two-fold increase in the size of the population, the latter being the birth rate's denominator. During the same period, the decrease in mortality has helped increase by only 60% the proportion of women in their reproductive period. The total number of these women has a direct bearing on the number of births, which constitutes the rate's numerator.

The depressive effects of the decreased fertility and reduced mortality on the birth rate are at least compensated by the preponderance of young adults (men and women) among the immigrant population. The effect on the numerator (the number of births) of the growth in the female population in its reproductive period is relatively greater than the effect of adding the immigrant population to the denominator, provided that the fertility rate among immigrant women is equivalent to the rate among women born in Canada, and that there is a certain equilibrium between sexes among the immigrant population. In the past this population was characterized by a marked male predominance and by a lower fertility than for women born in Canada.[18] Recent immigration, where generally the number of women exceeds the number of men, definitely has had a positive effect on the birth rate. This cannot be said about past immigration, which had less favourable characteristics.

Emigration, insofar as its sex-age profile is a replication of the immigration profile, has an opposite effect on the number of births. If the portion of emigrant women in their reproductive period is higher than the ratio of all emigrants to the total population, the number of births decreases proportionately more than

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[17] The summation of age-specific fertility rates for a given period constitutes the synthetic measure of fertility. It represents the number of children per woman that was observed among a cohort of women 15 to 50 years of age at the time considered. It reflects the response, in terms of reproductive behaviours, to the economic situation. Therefore, it may differ from the generations lifetime fertility rates which are used to calculate the synthetic measure of fertility.

[18] Gauthier, A., "À propos de la différence de fécondité entre le Québec et l'Ontario", *Cahiers québécois de la démographie,* vol. 18, no. 1, p. 188.

the total population. Therefore, a net emigration like that which occurred during the last 40 years of the nineteenth century must have contributed to the drop in the birth rate observed at that time.

It should also be mentioned that while mortality and fertility decline simultaneously, the age structure presents a high growth potential for a certain time. The 1981 age structure illustrates this phenomenon. Because of the baby boomers, the proportion of young adults is definitely predominant. Furthermore, particularly among women, it is higher than at any other time in the past or in the foreseeable future. This transitory age distribution has helped considerably in containing the decline in the number of births while fertility was collapsing. In 1991, the structure was already less favourable to upholding the ratio of births to the total population. And it will continue to be less and less favourable until about the year 2040 if longevity keeps increasing, if fertility remains low, and if migrations are equal to zero or are insignificant. As the proportion of elderly continues to increase over time, the number of deaths will rise and the number of births will be affected by the decrease in the relative proportion of women in their reproductive period. Then if mortality and fertility remain stable or quasi-stable at a low level for six or seven decades, there will be a time when the age structure will no longer reflect – or hardly at all – the pre-transitional and transitional levels of fertility and mortality. At that time, if the post-transitional fertility is insufficient to ensure replacement of generations, deaths will exceed births.

MIGRATION: INCONSTANT BUT SIGNIFICANT

The net migration modifies both the size and the age-sex structure of the population. Arrivals and departures are irregular over time and affect the cohorts involved in a variable way.

Although Canada is a country of immigrants, it has experienced periods when departures exceeded arrivals (Table 10). Records of Canadian migratory events are incomplete and are limited to legal immigration. Therefore, emigration can only be measured indirectly. Nonetheless, if precision is not required, past migrations can be detected by the marks they left: a larger or smaller size of population than the size implied by the excess of births over deaths; size increasing with age among cohorts; a higher male population than expected. More specifically, in the case of cohorts, if their respective size at birth is known as well as their survival profile, the number of age-specific survivors can be estimated with acceptable accuracy, and these data can be compared with those gathered through the census for the same cohorts. This process provides an estimate on the size of gains or losses attributable to arrivals and departures. Precision is subject to the quality of available data (Table A4 in the Appendix, and Figures 6 and 7).

Table 10. Estimated Immigration, Emigration and Net Migration (in thousands), 1851 to 1978, Canada

Period	Immigration	Emigration	Net Migration
1851 to 1861	209 - 486	86 - 332	+ (123 - 154)
1861 to 1871	183 - 266	370 - 436	- (150 - 192)
1871 to 1881	253 - 353	293 - 440	- (40 - 87)
1881 to 1891	448 - 903	602 - 1,110	- (146 - 206)
1981 to 1901	249 - 326	364 - 510	- (115 - 181)
1901 to 1911	1,111 - 1,782	317 - 1,067	+ (715 - 810)
1911 to 1921	1,373 - 1,612	1,067 - 1,381	+ (231 - 311)
1921 to 1931	1,195 - 1,204	967 - 1,174	+ (103 - 230)
1931 to 1941	149 - 151	240 - 353	- (90 - 202)
1941 to 1951	548 - 568	370 - 437	+ (131 - 180)
1951 to 1961	1,543	463	+ 1,080
1961 to 1971	1,429	707 - 1,004	+ (425 - 723)
1971 to 1981	1,429	635	+ 794
1981 to 1991	1,371	443	+ 928

Note: The years start on 1 June, and end on 31 May. For the periods 1971 to 1991, the estimates were provided by the Demography Division, Statistics Canada.

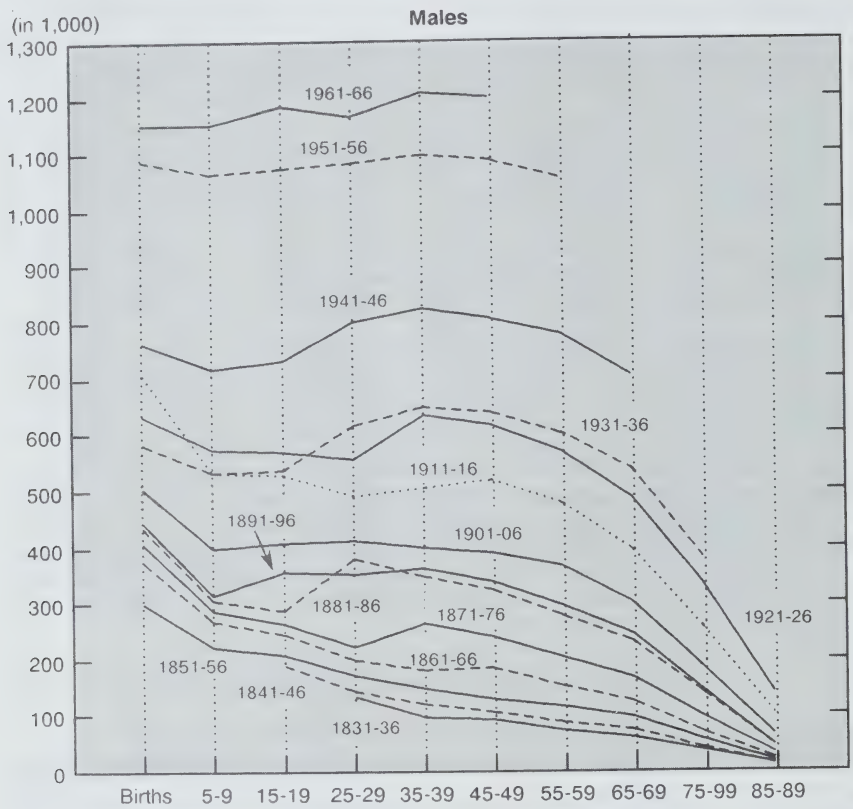
Source: Keyfitz 1950, Ryder 1954, McDougall 1961, Camu et al. 1964; *Manpower and Immigration*, 1974c; George 1976, Kelly 1977. The values shown are the minima and maxima estimated by the authors. The table is an extract from Beaujot and McQuillan, 1982, *Growth and Dualism*, Gage, Toronto, p. 83.

The cumulative deficits of cohorts born in Canada between 1861 and 1866 as inferred from the 1901 data (these cohorts were then in their mid-to late thirties), are around 22% for women and 17% for men. Though emigration among these generations mainly involved men, the greater representation of men among international immigrants - who never stopped converging to Canada in spite of the exodus towards the United States - may account for the higher deficit among women. The fluctuation in the size of cohorts from the year 1911 indicates that, among men in particular, the losses from the end of the nineteenth century were progressively compensated for by immigration during the first decades of the twentieth century. This compensation was only partial among women.

This considerable migratory influx not only rescued the cohorts that were dispersed by emigration, but it also increased these cohorts between 1891 and 1896 (by 25% among men, and by about 15% among women). A new influx of very large groups of immigrants at the Canadian borders did not occur again until the end of the Second World War. The effects of such massive arrivals

Figure 6A

Cohort Evolution in Successive Age Groups, Cohorts 1831-36 to Cohorts 1961-66, Canada



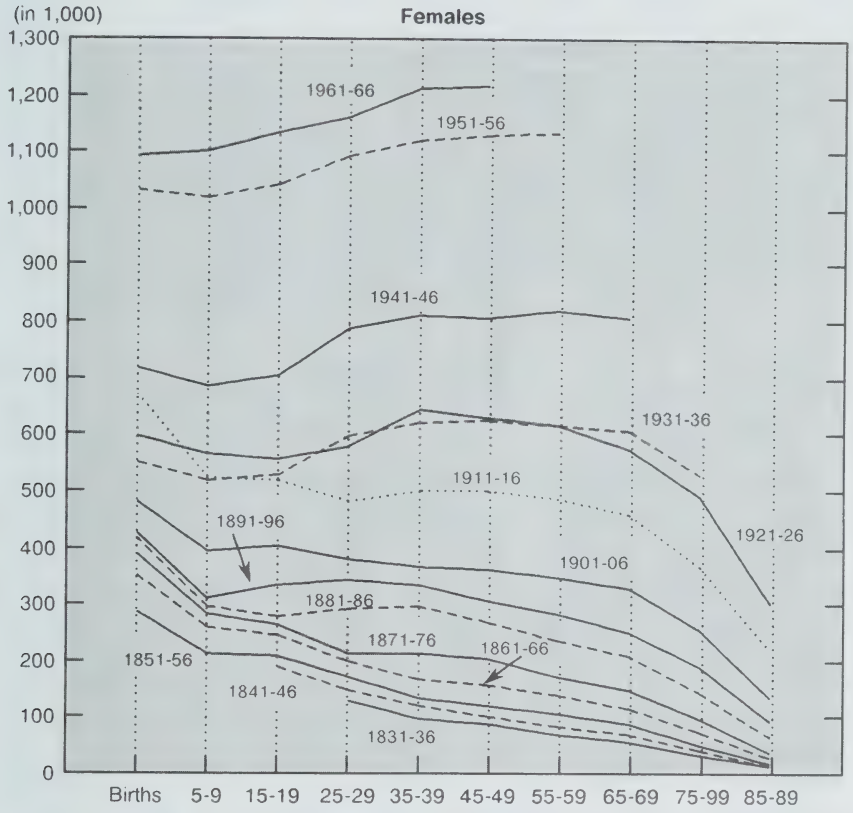
Source: Censuses and population projections, Demography Division, Cat. No. 91-520. Birth data from Vital Statistics and estimates by author for past periods.

on cohorts born in the early 1930s were noticeable: the cohorts increased by 30% in size before they reached retirement age. To date, for every 100 women born in Canada between 1951 and 1956, about 15 are newcomers compared with 10 for every 100 men.[19]

[19] The differential undercoverage (during enumeration), which is very pronounced between age 20 and 30, accounts, at least in part, for this difference between men and women.

Figure 6B

Cohort Evolution in Successive Age Groups, Cohorts 1831-36 to Cohorts 1961-66, Canada

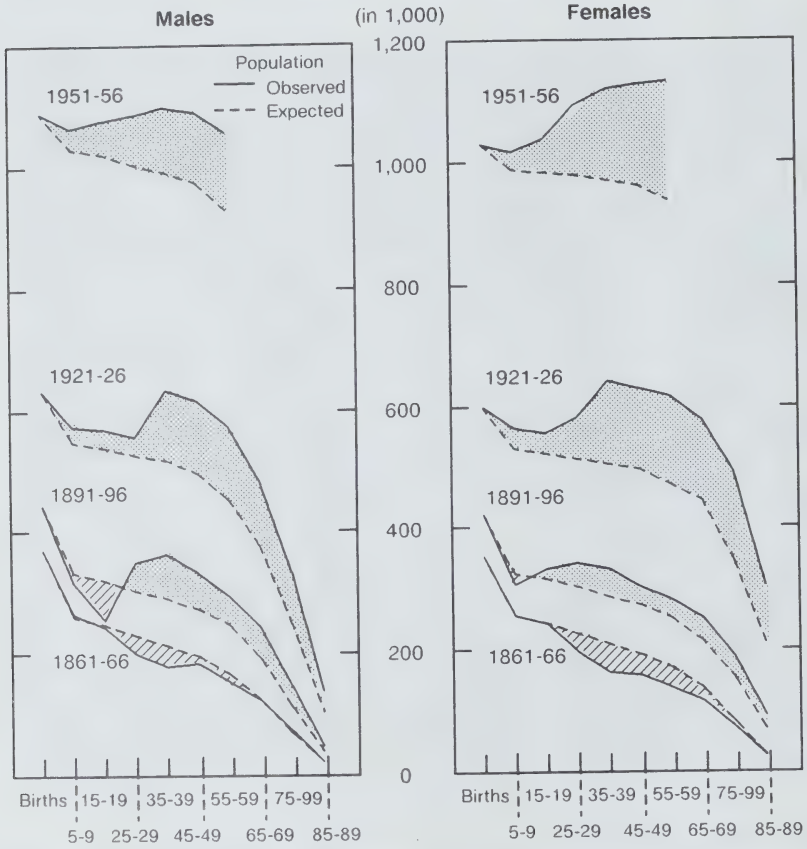


Source: Censuses of Canada and population projections, Demography Division., Cat. No. 91-520. Birth data from Vital Statistics and estimates by author for past periods.

Emigration is not equal to zero (Table 10), therefore the difference between the enumerated population and the expected population likely underestimates the ratio of new Canadians to native Canadians in the cohorts concerned, unless only residents who were born abroad emigrate. Due to the increasing diversity of immigrants' origins, some generations clearly have (or will have) acquired cosmopolitan characteristics. This is particularly noticeable in urban centres which tend to attract new arrivals.

Figure 7

Difference Between Observed and Expected Populations for Certain Cohorts, Selected Age Groups, Canada



Source: Age Groups: Censuses of Canada and population projections. Births: Vital Statistics and estimates. Probability of survival: Bourbeau and Légaré (1982) and estimates.

REPRESENTATION OF THE DIFFERENT COHORTS AMONG THE POPULATION AND IN SOCIETY

If all cohorts were the same size at birth, if death occurred for everyone at age 100 instead of at any age, and if migrations were equivalent to zero, each cohort would maintain until extinction its proportion of 1% in the population and the sex ratio would be constant at all ages. Reality deviates from this model, to varying degrees according to the period, and this diversity most likely has an effect on social evolution.

Table 11. Weights at Different Ages in Selected Cohorts, Born Around 1700 and Between 1831 and 1951, Both Sexes, Canada

Age	Cohorts (in percent)					
	1700	1831	1861	1891	1921	1951
0 years	5.8	5.5	4.3	3.5	2.7	2.8
30 years	1.3	1.4	1.5	1.5	1.6	1.7
60 years	0.3	0.5	0.6	0.8	0.9	1.3
90 years	0.0	0.0	0.0	0.1	0.2	0.3

Note: Method used to calculate the weights: For the cohorts born from 1831 onward, the numerator consists of a time series based on the number of persons in each age group recorded at each decennial census. Interpolations have been made to individualize the selected cohorts. The denominator consists of the number of persons during the year in which the cohort reaches the specified age. For 1700, Coale and Demeny's models of stable population were used (1983), West model, level 7 (women) and level 8 (men).

In fact, the influence of each cohort on its time may be somewhat related to the cohort's size at birth and to how its evolution is affected by the specific mortality and migration of that cohort. The variation in the social weight of cohorts may be attributable to the fluctuations in demographic weight of some cohorts compared with others at ages of dependency, as well as at ages when power is exercised, no matter how little (by vote, position, revenue, for example).

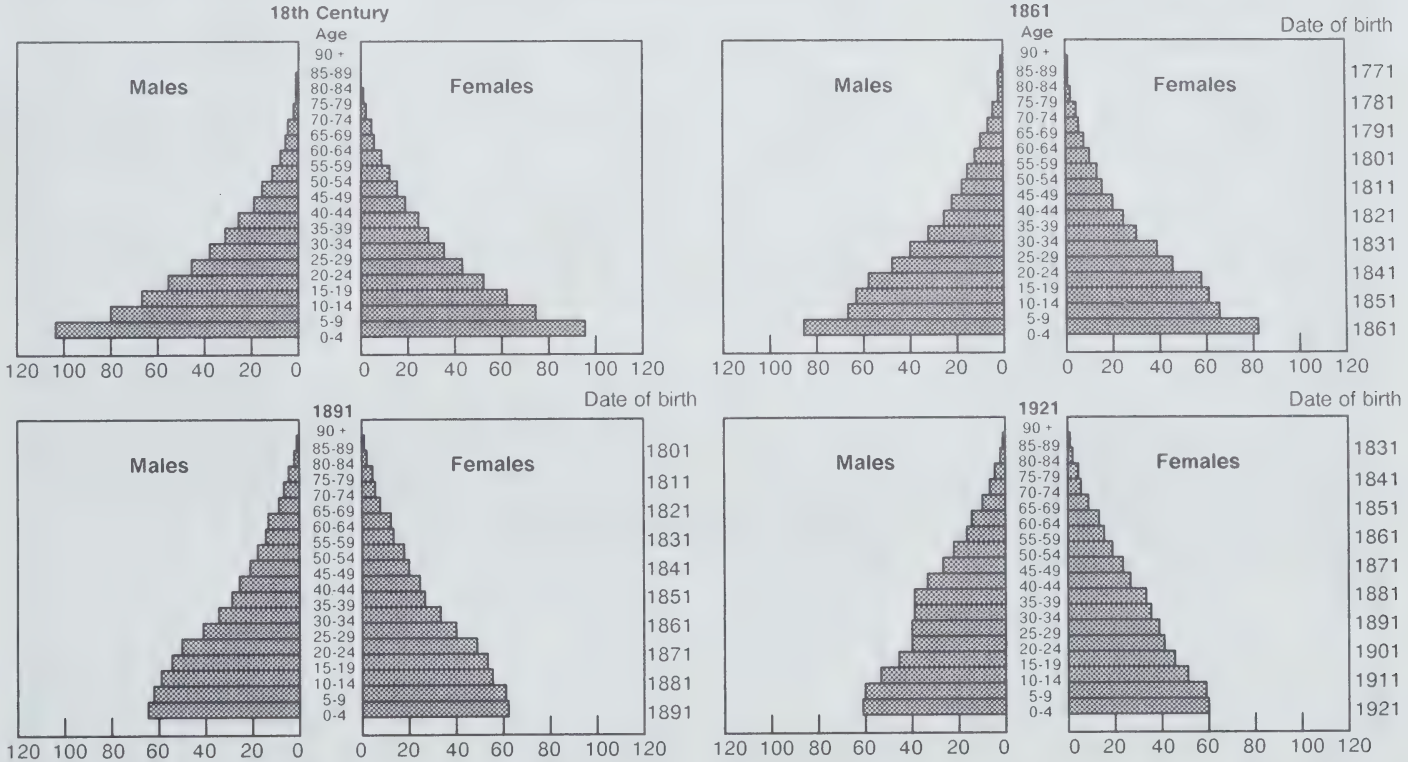
Deviation from an equal age distribution is much less marked today than it was during the pre-transitional past. ***The cohort born in 1700 has evolved according to a demographic pattern where it represented 5.8% of the total population at birth.[20] As it was succeeded by ever larger cohorts, at age 30 its weight fell to 1.3%. At 50 years of age, it represented only 0.5% of the population, and at age 60, only 0.3%.*** When both growth and mortality are high the rapid erosion of the weight of each cohort as it grows older is the situation that prevails (Table 11). If growth had been equal to zero and mortality had been the only factor, at birth this cohort would have accounted for 2.9% of the population; 1.5% at age 30 and 0.8% at age 60.

The cohort born in the mid-twentieth century had a demographic weight at birth twice as small as that of newborn children from the eighteenth century. However, at the time of retirement, its proportion is four times greater among the population than its pre-transitional counterpart. This is a baby boom generation and during its entire adult life, it will have a numerical advantage considering that it accounts for more than 1% of the population at all times. This is more than the proportion expected from the model proposed above, more than the previous generations, and probably more than those born since 1970.

[20] This percentage is derived from stable population models which allowed the reconstruction of the population corresponding to the fertility in the early eighteenth century and to an annual growth of about 2.75%.

Figure 8

Age Pyramids of Canada for Selected Years since Early 1800

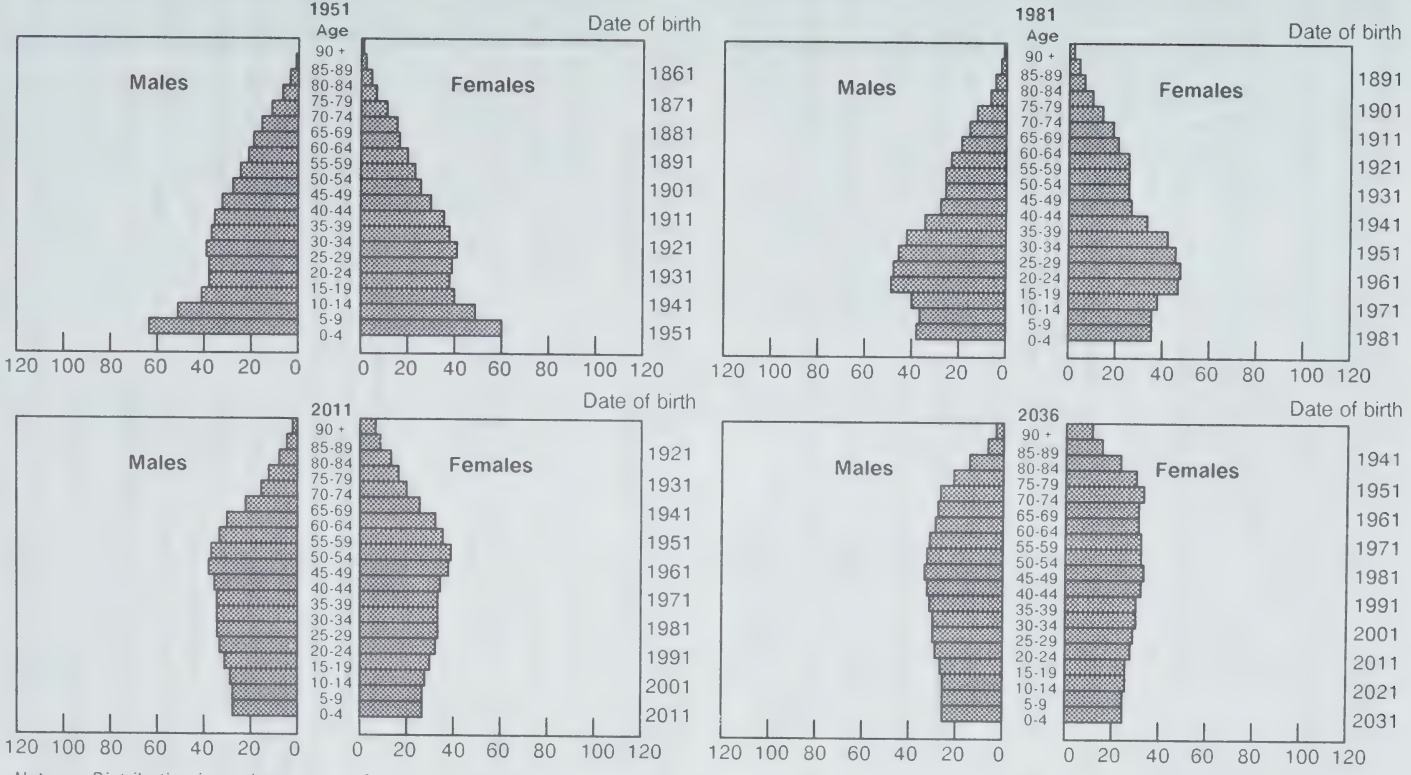


Note: Distribution in each age group for a total population of 1,000

Source: See next page.

Figure 8

Age Pyramids of Canada for Selected Years since Early 1800 (continued)



Note: *Distribution in each age group for a total population of 1,000.*

Source: *18th Century:Coale and Demeny, "Regional Model Life Tables and Stable Populations", Academic Press, 1983, pp. 86 and 137. For 1861 and 1891 Census of Canada, 1931, volume 1, table 9 respectively. For 1921, 1951 and 1981:Censuses of Canada. For 2011 and 2036:Statistics Canada, "Population Projections for Canada, Provinces and Territories", Ottawa, 1989-2011, 1990, pp 150, 177 and 178.*

In effect, a relatively rough estimation of the pattern of cohorts being born today shows that at birth these account for 1.5% of the population, and that their weight will represent 1.3% at age 30 and 1.2% at 60 years of age. If fertility remains below the level of cohort replacement, the situation will be reversed. The relative weight of cohorts will increase slightly with age up to about age 60, and then will decrease more slowly at advanced ages, only if fertility increases (see Figure 8, the year 2036 pyramid, with a fertility rate of 1.67 children per woman).

Competition between generations, not significant in the past, will become common in the future. The pyramidal population structure lent itself to hierarchical social relations. At all levels of the social structure (family, community, corporation, nation, and so on), usually those at the upper levels of the hierarchy came from the small numbers belonging to the top of the age pyramid. The number of managerial staff grew inversely to age, in such a way that the age pyramid and the hierarchical structure more or less corresponded to one another. The inversion of the age pyramid (or its metamorphosis into a dome), which has been in progress since the late 1960s, expands the traditional pool for recruitment to the top levels of hierarchy and reduces the base substantially. As a result, competition for the higher positions increases and, at the same time, the number of those in power shrinks.

POPULATION STRUCTURES AND SOCIAL CHANGES: SOME EXAMPLES OF THE INTERRELATIONS

In a rapidly changing society there is a desire to intervene and direct the change. Without understanding all interactions between demographic and social dynamics, it can be shown that breaking the former demographic equilibrium has favoured several social changes which occurred recently or which are still in progress.

The correspondence between the age and sex distribution and the parameters of the post-transitional demographic stage is mechanical, and therefore predictable. However, the slow pace at which structural transformation occurs (compared with the rapidity of behavioural changes) means that changes in structure will continue for a long time to heavily influence the social dynamics. Figure 8 shows how closely the 1981 age pyramid (if people below age 20 are excluded) resembles the 1951 pyramid. Only around the year 2036 will the population structure bear the signs, at least until old age, of the low birth and mortality rates of the post-transitional stage. Only the old-age group, comprising survivors of the several cohorts born after the Second World War, will recall the bygone high birth rates. Fluctuations in the age-sex structures were moderate until recently but, nonetheless, have favoured a great many changes in society. Among the fundamental aspects of social organization, the place of women is

undoubtedly the one that has changed most radically. This question would deserve an in-depth analysis and even the few themes discussed in the following require a less superficial survey.

From Minimal Literacy to Ongoing Training

The changes in education which were induced by the population processes have had their greatest impact on those who have been traditionally targeted for this activity; namely, the youth. Incentives to promote schooling do not pertain to demography. However, the costs of education, all things being equal, certainly seem lower when school-age youths do not constitute a major portion of the population and when taxpayers are relatively large in number.

The proportion of "schoolable" people between the ages of 5 and 15 in 1861 (26% of the total population) was equivalent to the proportion of those between ages 5 and 20 in 1951, and hardly lower than that of persons between 5 and 25 in 1991 (28%). This certainly affects public expenditures. The proportion of adults 15 to 64 years (comprising the majority of persons liable to tax) grew from 55% in 1861 to 62% in 1951, and to 68% in 1991. This does not take into account that the pool of persons liable to tax - traditionally almost exclusively men - has expanded due to women's participation in the labour market.

The opportunity for youths from recent generations to study at length has also improved because of the small number of siblings. The parents' care and income are distributed among fewer children than in the past and the nearly universal survival at ages of parentage is also a favourable factor. Few young people have to leave school because of a parent's death.

Today's need for training goes beyond youth, however. The post-transitional population provides cohorts born around 1950 with some 40 years of working life. This is a lot compared with the 23 years available on average to the eighteenth century ancestors, between age 15 and 65. ***Today the long duration of potential working life, even greater than the life expectancy at birth in the eighteenth century, has an influence on professional patterns.*** Few workers contemplate the prospect of spending some 40 of their best years as unskilled workers. There are few activities with any degree of specialization that can be practised for 40 years without major retraining. It is equally certain that a significant portion of workers, for various reasons, will not be able to remain in the same job field for some 40 years, if only because the job itself may disappear when a method of production or a product is discontinued. The normal progression of very long careers, the need for workers to adapt to inevitable changes in their field of work, the increasing number of vocational shifts and the probability of their occurrence being linked to the length of working life, are some of the factors that promote the integration of ongoing training within the labour market process.

Table 12. Adult Education Participation Rate, by Age and Sex, 1983, Canada

	Age (in percent)						
	17 years and over	17 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and over
Both Sexes	19	23	29	25	15	10	4
Males	17	18	27	23	14	8	2
Females	21	27	31	28	16	11	5

Note: Participation rates are based on the population aged 17 years and over, excluding full-time students.

Source: Supplement to the Labour Force Survey, January 1984. This table is an extract from a joint document between Statistics Canada and the Secretary of State, *One in every Five. A Survey of Adult Education in Canada*, by M.S. Devereaux, p. 6, Table 2.

A survey on adult education conducted in 1983 shows that one-fifth of the out-of-school population 17 years of age or over is enrolled in training activities. Adults between the ages of 25 and 45 (particularly highly trained women) (Table 12) are predominant. Slightly more than one-third of women with some or complete postsecondary training, and almost half of those with a university degree, are pursuing training of some kind.

The majority of adults who have registered for courses claimed that these pertain to their jobs. Furthermore, it seems that participation is noticeably lower than average among men and women who have not completed secondary school. This leads to the conclusion that an increase in the average level of schooling will favour an increase in the demand for training.

Data from the Labour Force Survey,[21] which cannot be compared directly with those from the 1983 survey, tend to confirm this. The number of people aged from 30 to 65 who registered for credit courses doubled between 1980 and 1990, from 227,000 to 461,000; most of these students were attending colleges or universities.

	Participation Rate					
	1980			1990		
	T	M	F	T	M	F
30-64 years	2.4	2.1	2.8	4.0	2.9	5.0

Predominantly, more and more women are seeking these additional credits. However, those between 30 and 35 years of age have the highest participation rate: 5.2% in 1980 and 8.5% in 1990.

[21] *Perspectives on Labour and Income.* Winter 1991, Statistics Canada, Catalogue No. 75-001E. Contrary to the 1983 survey, the 1990 one is restricted to credit-earning courses.

Progress towards ongoing training, by whichever method, requires that some thought be given to preparing youth for working life. Though there is no agreement in the forum where this issue is discussed, some consensus is emerging. Several contributors think that extending schooling and early vocational guidance or "hyperspecialisation" are not inescapable solutions. An increasing number of people advocate basic training that is broad or general enough to be a good foundation for complex professional itineraries interspersed with training periods.

As the old-age group grows, education is also becoming a leisure activity. Many retired people take courses that may or may not lead to a diploma. In 1983, 4% of persons aged 65 or over claimed they were registered in adult education courses (Table 12). This type of training is more often for leisure or personal development. It can result in a diploma; however, it can also prepare participants for service activities on a voluntary or paid basis.

The fact that aging helps maintain the field of education is a conspicuous turn of events considering that its activities have traditionally focused on youth and that these activities were expected to subside considerably as a result of significant shrinking of the group below age 20. Because more adults of all ages involved in training activities are being added to the system, the relative importance of education may well be increasing.

Some Operating Principles of the Work World Founder

Traditionally, men have dominated the work world. The demographic parameters and structures of the past predisposed women's activities to the confines of the home and often favoured restricting these activities to maternal, parental and domestic tasks. During the eighteenth century, a time when maternity spanned from the time of marriage to about age 40, women aged 45 to 65 accounted for less than 10% of the female population and less than 5% of the total population. At those ages, though they were liberated from pregnancies and breast-feeding, a significant proportion of women still had to care for young children. If the labour market had been accessible to them, they still would have represented only a fraction of the workforce. In the nineteenth century, dissociation of workplace and residence became generalized as a result of industrialization and made the split between the private and the public spheres more pronounced.

The population shift to the demographic post-transitional stage favoured the shattering of the traditional social model; the two changes reinforce each other. As far as it can be estimated, the participation rate for women has been increasing since the beginning of the century: from about 15% in 1901, it grew progressively to 30% in 1961, and reached its highest level at 50% between the ages of 20 and 25. This latter figure also indicates that women's attachment to the labour force involves mostly single women. Some 40 years ago, during the

Table 13. Labour Force Participation Rate (in percent), by Age Group and Sex, 1975 and 1991, Canada

Age group	Males		Females	
	1975	1991	1975	1991
15 to 19 years	54.6	55.9	47.4	53.9
20 to 24 years	85.0	81.4	67.0	75.5
25 to 34 years	95.2	92.6	52.9	77.2
35 to 44 years	96.0	93.8	51.5	78.4
45 to 54 years	92.7	90.6	46.1	69.9
55 to 64 years	79.3	62.6	30.8	35.7
65 years and over	18.5	11.3	4.9	3.5
Total	78.4	74.8	44.4	58.2

Source: Statistics Canada, *Historical labour force statistics*, 1991, Catalogue No. 71-201.

Table 14. Women's Labour Force Participation Rate, by Marital Status and Age, 1991, Canada

Age Group	Marital Status (in percent)				
	Single	Married	Divorced	Widowed	Total
15 to 24 years	63.0	73.3	60.2	...	65.1
25 to 44 years	83.6	76.8	76.0	75.5	77.8
45 years and over	37.9	40.6	51.5	11.2	34.9
Total	66.5	61.4	64.0	13.4	58.2

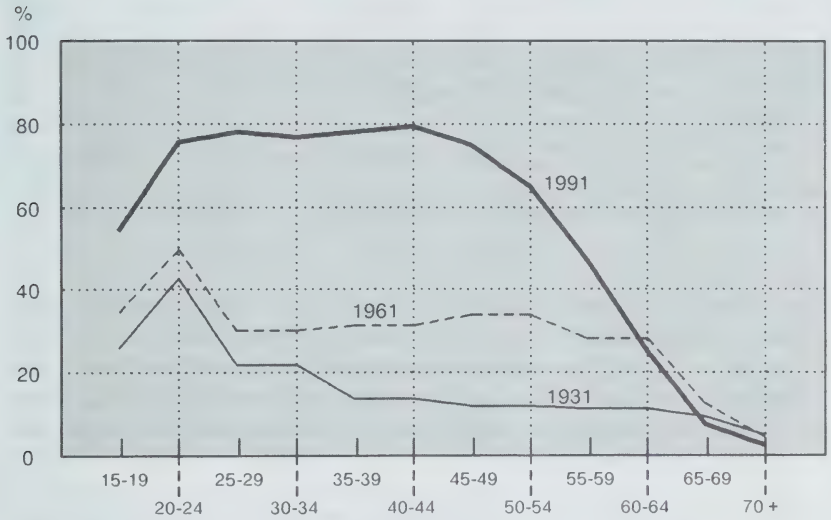
Source: Statistics Canada, *Labour force annual averages*, 1991, Section B8, Table 3, Catalogue No. 71-220.

baby boom, only 10% of married women earned a salary.[22] Since then, the women's participation rate has increased noticeably, but it still lags behind the men's rate (Table 13). The peak between the ages of 20 and 45 has disappeared and has been replaced by a plateau. The current women's participation rate curve suggests a strong decrease in the influence of marital status on the labour force participation of women. This diminished influence is also visible in Table 14.

[22] Ostry, S. (1968) *The Female Worker in Canada*. 1961 Census Monograph, Dominion Bureau of Statistics, Ottawa, 63 pages.

Figure 9

Labour Force Activity Rates for Females, by Selected Age Groups, Canada, 1931, 1961 and 1991



Source: 1931:Census Canada, Volume 1 (98-1931); 1961, Volume 7, Part 1, Statistics Canada; 1991: Estimates produced by the Household and Institutions Survey Methods for the Active Population Sub-Division, Household and Institutions Division, Statistics Canada.

If marriage (including consensual unions) does not seem to have an inhibitive effect on women's participation in the labour force between the ages of 25 and 45, it may be concluded that the presence of children also does not restrict participation significantly. However, the children's age does affect the mothers' participation rate (Table 15). Seemingly, the presence of pre-school age children at home, particularly very young ones (two years of age or less), keeps a relatively large portion of women away from the labour market. The absence of such women could be interpreted more accurately if we knew more about them; for example, income, the type of accessible child care services, and adjustments provided by the work environment to help reconcile the roles of worker and parent.

In any event, increased longevity and smaller family size have progressively provided women with more time, considerably more than what is required for the roles of housewife and educator, even at the height of their reproductive period.[23] Canadian society must now take into account that the reproductive role of the female population is 3 to 4 times lighter than it was for their ancestors, even if fertility should rise to the population replacement level. It must also

[23] Even considering that the time required to raise a child is difficult to measure, and that it varies according to requirements specific to certain times and societies.

Table 15. Women's Labour Force Participation Rate, by Age of Youngest Child, 1976 and 1991, Canada

Age of Youngest Child	1976	1991
Less than 3 years	31.7	61.5
3 to 5 years	40.9	68.2
6 to 15 years	50.1	76.2
Total, with a child 16 years and under	43.0	70.2

Source: 1976: Statistics Canada, *Labour Force Survey*, unpublished data. 1991: Statistics Canada, *Labour force annual averages*, 1991, Section B18, Table 8, Catalogue No. 71-220.

consider the increase in the proportion of the female adult population aged 40 and over, whose fertility can be considered as complete in view of the very low fertility after age 40. The data on women's participation in the labour force leaves little doubt concerning how modern women make the most of their time. In view of the current economic situation, women will not likely reconsider their move into the labour market.

The changes that benefit women are not without repercussions, however. For instance, the double role of parent and worker has been seen – and it still often is – as essentially a woman's role. According to social tradition, the father in his capacity as purveyor delegates most parental responsibilities to the mother who remains at home. This tends to hold true even when the mother works outside the home.

A recent study on absenteeism concluded that:

> Among the reasons for the higher absence levels among working mothers, the persistence of traditional practices appears to be important. Years ago, when few women held jobs outside of the home, they generally handled most family responsibilities... It appears that this division of parental responsibilities has not changed over the years in spite of the shift towards equality in responsibility for family financial support.

Excluding maternity leave so that only short absences are taken into account, one notes:

> ... that working women with preschool children lost more than twice as many work days due to 'personal or family responsibilities' than working women without preschool children... The presence of children appears to exert a strong and growing upward pressure on absence levels among mothers working full time in paid jobs, but has very little influence upon fathers.[24]

[24] *Perspectives on Labour and Income,* Spring 1992: "Absences from Work Revisited", (E. Akyeampong), pp. 45-53.

Though the length of a woman's working life on average is almost equal to a man's once the total duration of pregnancies and post-partum periods has been subtracted, it is with reluctance that the labour market and society grant women their full status and rights as workers. In spite of some progress, while there seems to be an increasingly broader acceptance of sex-based employment equity and equal sharing of parental responsibilities, the related social mechanisms are not yet fully adapted to reality. For example, women still encounter difficulty in obtaining parental leave, pay inequities between men and women, job uncertainty after maternity leave, and so on.

There are numerous interrelations. For example, it seems rational to assume that the income discrepancies between spouses would dictate, at least partially, who should take charge of family responsibilities at the expense of the worker status. Though today the work regime of spouses is comparable in 52% of cases, their income is comparable only about one-quarter of the time. On average, women's income is much lower than their husbands income. And, instances when the financial contributions of spouses are closer to one another occur mainly when the husbands' income is high.[25] One cannot conclude that this situation is attributable to women's lack of interest in careers. Their enrolment in ongoing training, as seen above, is higher than it is for men. And their persistence in the labour market continues, in spite of an environment that is not particularly favourable to women.

In the past, the labour force was not only primarily male but, because of its demography, the great majority was young. During the second half of the eighteenth century, 7 out of 10 men aged from 15 to 65 were 40 years of age or less. The future will be quite different: mature workers will dominate the labour force in Canada as early as the second decade of the next century. If the normal career development pattern continues to be founded on the principle of working one's way up, from one level to the next, to a managerial position, the hierarchical structure will soon be reversed, as will the relative weight of the base versus the top. The age structure of tomorrow's society calls for a flexible work world. This should include responding to training needs and encouraging mobility.

Changes in the Duration of Life Cycle Segments: A More Complex Matrimonial Itinerary

Today, if death of either spouse is the sole reason for the termination of a union, this union would have lasted more than 40 years. With the fertility rate being below two children per woman, the parental stage of the family cycle should not monopolise much more than 20 years. A comparison between couples from the end of this century and those from the seventeenth and eighteenth

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[25] *Perspectives on Labour and Income,* Summer 1992, "The changing profile of dual-earner families", (R. Chawla), pp. 26-27.

centuries shows a striking contrast:[26] ***among ancestors, a first union would have lasted to the end of the woman's reproductive period, with the first birth occurring on average one year after marriage. The last birth would have happened some 20 years later, ending the parental stage after the parents had reached the age of 60.*** However, this profile was actually far from standard. In fact, the union's break up due to a spouse's death occurred on average some 20 years after the beginning of the union. One-parent families were a result of a spouse's death. Remarriage often followed widowhood. During the eighteenth century, half of widowers and slightly more than one-third of widows remarried. However, the age at which widowhood occurred was an important factor: 80% of widowers aged 40 or less and widows less than 30 years of age remarried. Similar to today, there were ***a great number of reconstituted families during the eighteenth century***. The duration of the lone-parent stage was surprisingly short because widows remarried on average 2.3 years after their spouse's death and widowers, 3.1 years later.[27]

Lone-parent families today are mainly a result of divorce. The cross-sectional data indicate that the proportion of marriage breakdown due to divorce is about 40%, which might be exaggerating the magnitude of the phenomenon. Nonetheless, about 30% of married persons most likely will divorce before their 26th wedding anniversary.[28] Because child custody is granted to mothers most of the time, 80% of one-parent families are headed by women.

> About 500,000 women headed one-parent households in 1984, but 900,000 had been in this category. At the time of Statistics Canada's Family History Survey, 84% of these women had been married once or twice, or had started living common law, while the others raised their children alone until the children left home. Twelve percent of women headed one-parent households for a short period lasting less than six months. However, an equal proportion of these women remained in that situation for more than 10 years. The average duration was 4.6 years.[29]

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[26] For a very useful comparative view of the past and the present situation with respect to marriage and family, one should turn to E. Lapierre-Adamcyk, Y. Landry et al., "Le cycle de la vie familiale au Québec: vues comparatives, XVII^{e}-XX^{e} siècles", *Cahiers québécois de démographie,* vol. 13, no. 1, 1984, pp. 59-78; H. Charbonneau, "Trois siècles de transformation du calendrier démographique du Québécois moyen", *Présentation à la Société royale du Canada,* no. 39 (years 1983-1985), pp. 47-55; and *Marriage and Conjugal Life in Canada,* by J. Dumas and Y. Péron, in the series Current Demographic Analysis, Catalogue No. 91-534, 1992, 167 pages.

[27] Charbonneau, Hubert, *Vie et mort de nos ancêtres, Étude démographique,* Montréal, Les Presses de l'Université de Montréal, 262 pages.

[28] Statistics Canada, *Marriage and Conjugal Life in Canada,* by J. Dumas and Y. Péron, from the series Current Demographic Analysis, Catalogue No. 91-534, chapter 4.

[29] M. Moore, "Seules pour combien de temps? Durée de la monoparentalité chez les femmes au Canada", *Transition,* March 1989, p. 4. A more in-depth study of this subject is provided by the same author, in "Female Lone Parenting Over the Life Course", *The Canadian Journal of Sociology,* Fall 1989.

Table 16. Average Number of Years Lived Between Ages 15 and 65, Distributed by Marital Status, Cohorts 1921 to 1926, and 1951 to 1956, Canada

Marital Status	Males		Females	
	Cohorts			
	1921 to 1926	1951 to 1956	1921 to 1926	1951 to 1956
Single	12.2	14.1	10.4	12.2
Married	26.4	28.8	28.8	29.9
Widowed	0.4	0.3	1.7	1.4
Divorced	0.6	1.7	0.7	1.3
Total	39.6	44.9	41.6	46.6
Distribution (percent)				
Single	30.9	31.4	24.9	26.1
Married	66.6	64.1	69.3	64.1
Widowed	1.0	0.8	4.0	3.1
Divorced	1.5	3.7	1.8	6.7
Total	100.0	100.0	100.0	100.0

Source: Years lived between ages 15 and 65, Table 2. Distribution by marital status, Dumas and Péron, *Marriage and Conjugal Life in Canada*, Table 32.

How has the family institution been affected by the extension of the potential duration of the union to almost half a century? Such a length of time far exceeds the time required for reproduction and raising children, activities which the family institution has sought to protect. The sex-based specialization of father-purveyor and mother-at-home has become obsolete and no longer justifies preserving the conjugal relation when the participants might otherwise reject it. The increase in the potential duration of the union increases the probability of a breakdown, thereby increasing the likelihood of living in several successive unions. As a result, the family life cycle may alternate between periods of life in a couple, as a single person, as a lone parent, sharing custody of children, or reconstituting a family that includes children from several unions. A comparison between 1921-26 cohorts and 1951-56 cohorts with regard to distribution of years spent in several states of marital status during adult life shows that life as a divorced person represents more than its share of the increase in the number of years to be lived between age 15 and 65 (Table 16). In spite of remarriage, the relative proportion of marriage has declined, and widowhood, it is known, is progressively postponed beyond the stage of adult life.

The future age structures are expected to reflect an increase in the proportion of couples settled in the post-parental stage, and also predict an increase in the number of couples with a broad age difference between spouses. The marriage market, in view of the shrinking proportion of youth among the population,

will be dominated less and less by candidates to first marriages. Even if age-specific rates of union breakdown did not increase, the proportion of individuals exposed to risk is growing. As a result, re-entries into the marriage market may increase and may also spread the age distribution of marriageable persons considerably. Therefore, there should be increasingly more families with young children whose father is much older than the mother. The limited duration of a woman's reproductive period restricts the probability of a family with children when the woman is considerably older than the man.

THE AGING OF THE POPULATION

Even if aging of the population could be slowed by an increase in fertility, the number of people aged 65 and over, at least in the medium term, would not be affected and would still be considerable. In the long term, this group would grow because cohorts entering the group would be larger. The rate of growth of their weight would be slowed down, but in the end, though their proportion would be slightly lower than expected, it would still not be contained to the current level or brought down to past levels. In the middle of the next century, the population will be old, although 75% to 80% of the people comprising this population will be below age 65. Nothing indicates that such a population structure would be detrimental or that society would not benefit from it in many ways. Consequences of this demographic profile on society depend on the way it will define old age, and even more, on how it will affect the elderly. ("Elderly" is understood as the group aged 65 to 74 which may no longer be the mature age, but which perhaps does not have all the attributes too often associated with old age; namely, poverty, sickness and dependency.)

Characteristics of today's adults, particularly women, do not resemble those of adults in the past. Several reasons may be put forward to presume that the characteristics of old people (whom today's adults will become) will not replicate those of the current group of age 65 and over. First, 65 years of age is not a fixed frontier between mature age and old age. Secondly, the future old men and women, in comparison to those from previous generations, currently have lighter family duties, greater education, better work, employment and saving conditions, a better health support system, broader access to retirement plans, and so on.[30] At best, men and women in their senior years will be a strength in society, according to optimists, by their capacity to energize it. At worst, they will be better prepared to tackle old age and to define their roles in society. Knowing the characteristics of the population that will produce the elderly during future decades is a considerable advantage. This knowledge at least may avoid anticipating a huge burden on society based on the current needs of the elderly.

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[30] The article by N. Marcil-Gratton and J. Légaré, "Vieillesse d'aujourd'hui et de demain: Un même âge, une autre réalité?", *Futuribles,* No. 110, (May 1987), pp. 3-21, provides a useful reading on this theme.

CONCLUSION

While the last generations of Canadians born in the mid-nineteenth century during the pre-transitional phase were fading away, the first baby boomers were born as great-grandchildren of the former. When the baby boomers reach old age, the Canadian population profile will be typical of populations with reproductive patterns from the post-transitional phase. From birth to age 60 to 70, and probably beyond for some, the sizes of populations at different ages will remain relatively stable. The decline in population growth, perceptible among people in their 70s, will become sharp around age 80. A lengthy old-age period will be accessible to all, and this segment of life will become equal to that of youth. In the course of only two generations whose respective end and beginning coincide, this new structure has replaced the classical broad-base, narrow-tip pyramid. During hundreds of thousands of years, the pre-transitional populations produced twice as many newborn children as young adults. These young adults were among those who had produced these children. They were also up to three times as numerous as the people in their 60s who had given birth to most of them.

In just over one century, the life expectancy of Canadians has doubled, and their parental burden (that is, number of children) has decreased by half. These spectacular changes in demographic behaviour have gradually made it possible for almost everyone to go through several life experiences and even to invest time in personal development. These transformations were rightfully expected to produce notable changes in age structure and in the rates of population growth. However, until the 1960s, their impact was lessened by the high population increases that occurred prior to the transition, and by some concomitance of a decline in the birth rate and in mortality. It was only after the Second World War, that the public attention was drawn to the fact. The startling and rapid succession of the birth rate explosion and the resumption of a secular trend of decreased fertility (a 20-year period, at most) was creating strong and rapid distortions.

Mainly women were affected by the social consequences of increased longevity and controlled fertility. The availability of new roles allowed them to enter fields that were traditionally occupied exclusively by men. As a result, women had to confront – as they still do – the difficulty of reconciling domestic tasks with their new functions, as one of the primary tasks was still caring for children. In addition, increased longevity will likely bring changes in home life.

Even though an action-reaction dynamic is created when demographic and social progress occurs, changes in attitude may not be swift enough. Taking care of the elderly may become an additional responsibility to that of looking after the children needed by society, a duty still more often carried by women than by their spouses. Aren't modern reproductive behaviours an advance response of a sort? In a society that was ill-prepared for such abrupt changes, a significant

proportion of women seems reluctant to renounce their new quests in favour of their ancillary roles, when a clash between the two occurs. Consequently, the replacement of generations is threatened while the inevitable aging of the population is speeding up and increasing.

From the demographic point of view, the only model that merits consideration for the future, is the one being confirmed year after year – the post-transitional population. Its rules imply the inevitable transformation of the structures which will begin to stabilize only in the mid-twenty-first century.

Changes in structure, however, result in modified economic and social behaviours, just as much as they result from such modifications. Negative visionaries have the ruinous tendency to overlook this major phenomenon. In fact, societies have always been able to maintain remarkable flexibility thanks to this double-action mechanism. Thus, Cassandra is proven wrong, and the gloomiest prognosis usually does not materialize as a catastrophe. Totally unexpected and relatively acceptable situations are allowed to occur as a result of internal modifications of populations which are being replaced constantly by individuals whose attitudes change over time. Indeed, those who contemplate the future will not be among participants or if they are, it will be in roles they have not yet learned.

Appendices

Table A1. Population by Sex and Broad Age Groups (in thousands), and Sex ratio, 1861-2036, Canada

Age Group	Year						
	1861	1891	1921	1951	1981	2011	2036
	Males						
0 to 14 years	698	895	1,525	2,168	2,811	2,697	2,612
15 to 39 years	658	1,007	1,793	2,639	5,285	5,249	5,036
40 to 64 years	249	443	996	1,731	2,962	5,467	5,347
65 to 74 years	38	79	152	389	672	1,204	1,859
75 years and over	16	37	63	163	339	833	1,581
Total	1,660	2,460	4,530	7,089	12,068	15,450	16,435
	Females						
0 to 14 years	673	867	1,498	2,083	2,670	2,558	2,476
15 to 39 years	637	983	1,702	2,681	5,221	5,093	4,869
40 to 64 years	216	417	853	1,622	3,034	5,702	5,438
65 to 74 years	30	71	139	360	806	1,428	2,193
75 years and over	14	35	67	175	544	1,459	2,744
Total	1,570	2,373	4,258	6,921	12,275	16,420	17,719
	Sex Ratio						
0 to 14 years	1.04	1.03	1.02	1.04	1.05	1.05	1.05
15 to 39 years	1.03	1.02	1.05	0.98	1.01	1.03	1.03
40 to 64 years	1.15	1.06	1.17	1.07	0.98	0.96	0.98
65 to 74 years	1.27	1.11	1.09	1.08	0.83	0.84	0.85
75 years and over	1.14	1.06	0.94	0.93	0.62	0.57	0.58
Total	1.06	1.04	1.06	1.02	0.98	0.95	0.93

Note: The sex ratio is the male population divided by the female population.

Source: Canadian Census; Statistics Canada, *Population Projections*, Catalogue No. 91-520.

Table A2. Percentage Distribution of the Canadian Population by Sex and Broad Age Groups, 1861 to 2036, Canada

Age Group	Year						
	1861	1891	1921	1951	1981	2011	2036
	Males						
0 to 14 years	42	36	34	30	23	18	16
15 to 39 years	40	41	39	37	44	34	31
40 to 64 years	15	18	22	24	24	35	32
65 to 74 years	2	3	3	6	6	8	11
75 years and over	1	2	2	2	3	5	10
Total	100	100	100	100	100	100	100
	Females						
0 to 14 years	43	37	35	30	22	16	14
15 to 39 years	40	41	40	39	42	31	27
40 to 64 years	14	18	20	23	25	35	31
65 to 74 years	2	3	3	5	7	9	12
75 years and over	1	1	2	3	4	9	16
Total	100	100	100	100	100	100	100
	Both Sexes						
0 to 14 years	43	37	34	30	23	17	15
15 to 39 years	40	41	40	38	43	33	29
40 to 64 years	14	18	21	24	24	35	31
65 to 74 years	2	3	3	5	6	8	12
75 years and over	1	1	2	3	4	7	13
Total	100	100	100	100	100	100	100

Source: Table A1.

Table A3. Survivors, Per Thousand Persons at Birth, by Sex and Age, and Life Expectancy at Birth, 1700 Cohort and 1831 to 1951 Cohorts, Canada

Age	Both Sexes 1700	Males					Females				
		1831	1861	1891	1921	1951	1831	1861	1891	1921	1951
0 year	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1 year	789	814	811	835	907	958	838	834	856	923	966
5 years	715	704	709	752	872	950	724	729	773	890	959
10 years	688	680	687	734	863	947	698	706	756	881	957
15 years	667	666	674	724	856	944	681	691	744	874	956
20 years	634	646	656	710	847	937	659	672	731	868	953
25 years	589	618	632	691	837	929	631	648	713	859	950
30 years	547	592	608	674	829	922	604	624	697	854	947
35 years	498	566	583	656	821	916	577	599	679	848	944
40 years	453	536	559	642	811	910	548	576	663	842	941
45 years	405	502	531	624	798	901	519	552	645	834	935
50 years	365	466	500	603	775	889	490	527	627	820	928
55 years	320	422	460	571	740	866	455	496	601	800	916
60 years	267	371	414	527	695	833	412	458	572	775	899
65 years	213	308	354	466	630	776	355	406	528	739	870
70 years	155	237	295	389	549	704	286	347	475	690	834
75 years	96	160	220	296	443	598	203	268	398	623	772
80 years	53	89	137	198	329	462	122	178	311	537	676
85 years	18	37	65	108	210	305	55	93	204	417	532
90 years	3	10	22	43	108	147	16	35	101	274	327
95 years	N/A	1	5	11	32	44	2	8	32	110	132
Life Expectancy at Birth	36	40	43	49	63	72	42	45	54	70	80

N/A: Not available.

Sources: 1700 Cohort: Charbonneau, 1975, Table 31, p. 125. 1831 to 1981: Bourbeau and Légaré, 1982, Table F. 1921 Cohort: Bourbeau and Légaré, 1982, updated with observed life tables (1981) and projected life tables (1991 to 2011). 1951 Cohort: reconstructed tables with the data quoted above, and Coale and Guo's model tables, West model, levels 26 and 27. *Population Index*, (55-4), 1989.

Table A4. Comparison Between Registered and Expected Population in Specific Cohorts, Canada, 1831-1956

Age	1831 to 1836			1861 to 1866			1891 to 1896			1921 to 1926			1951 to 1956		
	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes
Birth	..	..	..	370.0	350.0	1.1	442.0	422.0	1.0	630.0	595.0	1.1	1,087.0	1,029.0	1.1
5 to 9 years	..	..	..	263.6	255.0	1.0	312.7	305.7	1.0	572.7	560.3	1.0	1,063.8	1,015.7	1.0
15 to 19 years	..	..	..	240.5	242.7	1.0	354.8	330.7	1.1	565.2	554.8	1.0	1,074.4	1,039.9	1.0
25 to 29 years	129.5	124.9	1.0	197.1	195.7	1.0	348.7	339.8	1.0	552.8	578.4	1.0	1,084.4	1,093.2	1.0
35 to 39 years	94.0	93.7	1.0	175.8	160.3	1.1	359.3	329.5	1.1	631.1	639.9	1.0	1,098.6	1,120.4	1.0
45 to 49 years	88.0	83.5	1.1	180.0	153.3	1.2	332.5	302.6	1.1	613.4	625.6	1.0	1,088.2	1,127.4	1.0
55 to 59 years	67.8	63.9	1.1	148.6	132.5	1.1	292.6	278.1	1.1	568.4	611.5	0.9	1,053.9	1,133.8	0.9
65 to 69 years	54.9	51.5	1.1	120.8	110.5	1.1	239.7	247.4	1.0	482.9	573.0	0.8	..	..	..
75 to 79 years	30.4	29.4	1.0	67.2	68.5	1.0	140.0	185.5	0.8	330.9	487.1	0.7	..	..	..
85 to 89 years	7.2	8.3	0.9	17.5	22.1	0.8	44.0	86.9	0.5	135.1	298.7	0.5	..	..	..
	Registered population if mortality is the only factor														
Birth	..	..	..	370.0	350.0	1.1	442.0	422.0	1.0	630.0	595.0	1.1	1,087.0	1,029.0	1.1
5 to 9 years	..	..	..	258.0	251.0	1.0	328.0	322.0	1.0	564.0	527.0	1.0	1,030.0	986.0	1.0
15 to 19 years	..	..	..	246.0	239.0	1.0	317.0	311.0	1.0	537.0	518.0	1.0	1,022.0	982.0	1.0
25 to 29 years	..	..	..	229.0	223.0	1.0	301.0	298.0	1.0	525.0	510.0	1.0	1,005.0	977.0	1.0
35 to 39 years	..	..	..	211.0	206.0	1.0	287.0	283.0	1.0	514.0	502.0	1.0	992.0	969.0	1.0
45 to 49 years	..	..	..	191.0	189.0	1.0	271.0	268.0	1.0	495.0	492.0	1.0	973.0	959.0	1.0
55 to 59 years	..	..	..	162.0	167.0	1.0	243.0	248.0	1.0	452.0	469.0	1.0	924.0	934.0	1.0
65 to 69 years	..	..	..	120.0	132.0	0.9	189.0	211.0	0.9	372.0	440.0	0.8	..	..	..
75 to 79 years	..	..	..	66.0	78.0	0.8	109.0	150.0	0.7	243.0	345.0	0.7	..	..	..
85 to 89 years	..	..	..	16.0	22.0	0.7	34.0	64.0	0.5	100.0	205.0	0.5	..	..	..
	Ratio between expected and registered population														
Birth	..	..	..	1.0	1.0	..	1.0	1.0	..	1.0	1.0	..	1.0	1.0	..
5 to 9 years	..	..	..	1.0	1.0	..	1.0	0.9	..	1.0	1.1	..	1.0	1.0	..
15 to 19 years	..	..	..	1.0	1.0	..	1.1	1.1	..	1.1	1,1	..	1.1	1.1	..
25 to 29 years	..	..	..	0.9	0.9	..	1.2	1.1	..	1.1	1.1	..	1.1	1.1	..
35 to 39 years	..	..	..	0.8	0.8	..	1.3	1.2	..	1.2	1.3	..	1.1	1.2	..
45 to 49 years	..	..	..	0.9	0.8	..	1.2	1.1	..	1.2	1.3	..	1.1	1.2	..
55 to 59 years	..	..	..	0.9	0.8	..	1.2	1.1	..	1.3	1.3	..	1.1	1.2	..
65 to 69 years	..	..	..	1.0	0.8	..	1.3	1.2	..	1.3	1.3	..	..	..	..
75 to 79 years	..	..	..	1.0	0.9	..	1.3	1.2	..	1.4	1.4	..	..	..	..
85 to 89 years	..	..	..	1.1	1.0	..	1.3	1.4	..	1.4	1.5	..	..	..	..

Sources: Population by age groups: Canadian censuses and Statistics Canada, *Population Projections*, Catalogue No. 91-520. Births: Vital statistics and estimates. Probabilities of survival: Bourbeau and Légaré (1982) and estimates.

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Glossary[1]

Census year: A neologism patterned after "fiscal year". In Canada, it refers to the 12-month period between June 1 of one year to May 31 of the following year. It can equally designate the year during which a census is held.

Cohort: A group of individuals or couples who experience the same event during a specified period. For example, there are birth cohorts and marriage cohorts.

Cohort, fictitious: An artificial cohort created from portions of actual cohorts present at different successive ages in the same year.

Crude rate: Relates certain events to the size of the entire population. For example, the crude birth rate for Canada is the ratio of the number of births in Canada in a year to the size of the Canadian population at mid-year. Crude death rates and crude divorce rates are calculated in the same way.

Current index: An index constructed from measurements of demographic phenomena and based on the events reflecting those phenomena during a given period, usually a year. For example, life expectancy in 1981 is a current index in the sense that it indicates the average number of years a person would live if he or she experienced 1981 conditions throughout his or her life.

Dependency ratio: A ratio that denotes the dependency on the working population of some or all of the non-working population.

Depopulation: The decline in the population of an area through an excess of deaths over births (not to be confused with the depletion of an area through emigration).

Endogamy: Marriage within a specific group.

Endogenous: Influences from inside the system.

Excess mortality: In differential mortality, the excess of one group's mortality rate over another's (see Sex ratio).

Exogamy: Marriage outside of a specific group.

Exogenous: Influences from outside the system.

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[1] For further information consult the following: International Union for the Scientific Study of Population, **Multilingual Demographic Dictionary,** Ordina Editions, Liège, 1980; van de Walle, Étienne. **The Dictionary of Demography,** ed. Christopher Wilson. Oxford, England: New York, NY, USA.

Fertility: Relates the number of live births to the number of women, couples or, very rarely, men.

Fertility, completed: The cumulative fertility of a cohort when all its members have reached the end of their reproductive period.

Fertility, cumulative: Total live births from the beginning of the childbearing period until a later date.

Frequency: Frequency of occurrence within a cohort of the events characterizing a particular phenomenon.

Frequency, cumulative: Total frequency from the start of the period of exposure to risk of event up to a later date.

Infant mortality: Mortality of children less than a year old.

Intercensal: The period between two censuses.

Life expectancy: A statistical measure derived from the life table that indicates the average years of life remaining for a person at a specified age, if the current age-specific mortality rates prevail for the remainder of that person's life.

Life table: A detailed description of the mortality of a population giving the probability of dying and various other statistics at each age.

Migration: Geographic mobility between one locale and another.

Natural increase: A change in population size over a given period as a result of the difference between the numbers of births and deaths.

Neonatal mortality: Mortality in the first month after birth (part of infant mortality).

Net migration: Difference between immigration and emigration for a given area and period of time.

Nulliparous: Pertaining to a woman or a marriage of zero parity (has not produced a child).

Parity: A term used in reference to a woman or a marriage to denote the number of births or deliveries by the woman or in the marriage. A two-parity woman is a woman who has given birth to a second-order child.

Population growth: A change, either positive or negative, in population size over a given period.

Population movement: Gradual change in population status over a given period attributable to the demographic events that occur during the period. Movement here is not a synonym for migration.

Post-neonatal mortality: Mortality between the ages of one month and one year.

Prevalence: Number of persons with a certain characteristic in a given group of persons.

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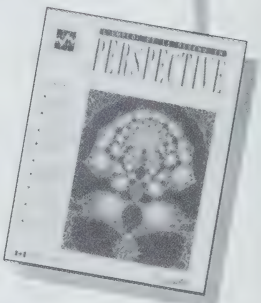

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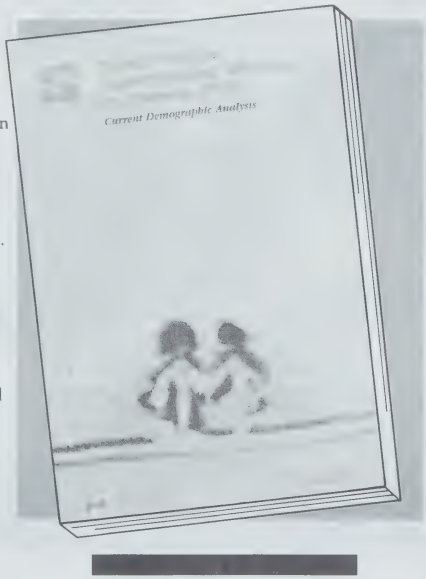

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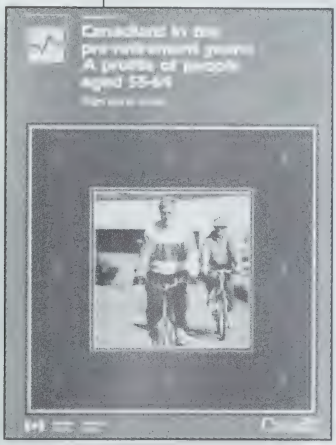

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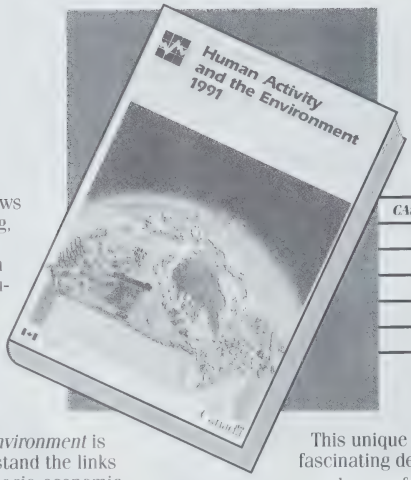

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